

ECOLOGY AND ENVIRONMENT, INC.

DALLAS, TEXAS

MEMORANDUM

To: Ed Sierra, Region VI RPO

Thru: K. H. Malone, Jr., FITOM

From: Michael Watson, FIT Chemist *MW*

Date: January 20, 1989

Subj: Preliminary Assessment for Texas and Northern Lone Star Warehouse Company, Lone Star, Morris County, TX (TXD981158249)  
TDD #F06-811-30  
PAN #FTX0816PAA

1. Site Information

Texas and Northern Lone Star Warehouse Company stores and processes steel pipe and tubing. The facility is registered with the Texas Water Commission as a generator, storer and disposer of hazardous waste. It occupies a large area in Morris County, which is bounded by FM250 on the eastern perimeter and a 1.5 mile stretch of Rock Springs Road (also Cass 2975) on its western boundary. The southern boundary is unknown (Figure 1). T & N is listed as the owner of only 16.4 acres in the northern portion of the site. The rest of the site is listed as belonging to Lone Star Steel, T & N's parent company and past owner. On January 5, 1989, a public announcement was made over the Morris County local airways that Lone Star Steel had now divided itself into seven independent corporations, three of which were new. As a result, the current ownership of T & N is unknown.

T & N is located in the drainage area of the Cawhorn Creek Basin, Latitude 32°57'14"N, Longitude 94°39'20"W, three miles northeast of the town of Lone Star in Morris County. Lone Star has a population of 2,023 and uses water from the Lake of the Pines for domestic, industrial and irrigation purposes (Reference 1). There are records of wells in the area (Reference 2; Reference 3). Most, if not all, are considered to be inactive or abandoned at this time.

Lone Star Steel has been in operation since 1942 (Reference 4; Reference 5), but the date of Texas and Northern's creation is unknown. There are at least three Site Waste Management Units (SWMUs) at T & N: an above-ground tank for the storage of heavy equipment, locomotive and vehicle oils, a container storage area for waste solvent, and a facility landfill (Reference 6). T & N generates used oils, metals, and spent solvents. T & N has manually disposed of an unknown quantity of waste

90069035



solvent into the landfill. The number of times that this has occurred is also unknown. The solvent, a waste thread lubricant, contains lead and zinc. The wastes generated and managed by T & N are flammable and toxic.

## 2. Background/Operating History

The acreage utilized by T & N has been the site of extensive strip mining operations for iron ore. Erosion, where unchecked by the planting of pine trees, has been extensive (Photographs 4 through 7).

Texas and Northern's current layout, including the actual perimeter of the property, the location and number of the SWMUs, and the actual threat from the on-site SWMUs cannot be determined from an off-site reconnaissance inspection. T & N is an active epee yard (SIC 3495), secured by a 24-hour guard station and an eight foot barbed wired, chain-like fence. All of the possible entry points to T & N are guarded or labeled and secured with chain and locks. Unauthorized entry is not possible.

Potential problems exist due to the low pH of the ground water. The ground water from the upper layers of the Cypress Springs aquifer is known to have corroded the plumbing of the local residences when it was used as supply of drinking water (Reference 2). Surface water also assumes an acidic pH shortly after contact with the overlying humus. Either could bring undissolved metals into solution and allow migration via available water pathways.

Existing analytical data show the plant's soils to be stained with random deposits of lead and zinc (Reference 7). Chromium of up to ten times the level allowed in the drinking water standards has been discovered by TWC in samples taken from two of the monitoring wells located around the landfill (Reference 8). TWC's analytical data shows that problems exist, but the extent of the problems is not identified.

An off-site reconnaissance inspection indicated that there is cooperation between Texas and Northern and the Mount Pleasant Soil Conservation Office. The dense growth of pine trees has checked soil erosion on the southern perimeter of the site. The effect caused by a lack of vegetation is evident on the northern portion of the site (Photographs 4 through 7).

TWC files list a remedial action against T & N for violations of the Texas Solid Waste Disposal Act and the regulations of the TWC. The penalty levied against T & N on September 10, 1986 was a \$5,420 fine (Reference 9).

## 3. Waste Containment/Hazardous Substance Identification

There is not much data available to characterize the quantity or to identify the type of waste either in the landfill or on-site. A failure to maintain disposal records was one of the reasons that T & N was fined in September 1986. TWC's on-site inspection provides the only available data. Lead and zinc were discovered in soil grab samples but that is

the extent of the analysis. The source of these metals is the corrosion inhibiting lacquer from the steel pipe that T & N stores and processes. Chromium was discovered in water samples taken from two of T & N's four monitoring wells. The analysis was of limited extent. The origin of the chromium can only be surmised to be the ore tailings.

A spring arose on the south end of the landfill. T & N dug a trench to allow the spring water to escape (Reference 6). The landfill has no containment system.

#### **4. Pathway Characteristics**

##### **a. Air Pathways**

The organic solvent which contained the lead and zinc contaminants is assumed to have an oil of low volatility. The soil around T & N is of a reddish-yellow granular type. Air pathways are not considered to be of concern.

##### **b. Ground Water Characteristics**

The ground water of the area is attributed to the Cypress Springs aquifer. The aquifer is considered to be composed of three layers or zones which are interconnected hydraulically and function as a single unit. The upper layer is of a low pH (5 to 6) and contains iron in solution. The middle layer is less acidic, but still contains iron. The lower layer (500-625 feet) is neutral and has given up its iron content. This layer is suitable for drinking purposes.

Specific geological conditions are shown in Table 1.

With a normal annual precipitation of 46 inches and water table of less than 60 feet (Reference 2; Reference 3), contamination of the ground water is a possibility.

##### **c. Surface Water Characteristics**

The surface water flow off-site would be into the Cawhorn Creek Basin. The migration of contaminants would then follow an easterly route for fifteen downstream miles into Cass County. There are no drinking water intakes (Reference 1), recreational usage (Topographic Composite), or potential food chain impacts along this route. With a two year, 24-hour rainfall of 4.6 inches and a low flood potential, the concern of hazards from the migration of dissolved metals and contaminants is of low priority.

##### **d. On-Site Pathways**

The on-site exposure pathway is not evaluated because the site is of a size which does not allow data gathering by way of an off-site visual inspection.

## **5. Targets**

There are no known ground water wells in use within four miles of the site (Reference 1). The municipal water source for the City of Lone Star is the Lake of the Pines, located five miles southwest, and away from the Cawhorn Creek Basin, the off-site drainage pathway. There are no drinking water intakes along the 15-mile surface water migration path from the site. There are no known recreational uses of this intermittent creek. The population within four miles of the site (air targets) is 4,276, including the residents of Huges Springs and Lone Star. The nearest single family residence is located 100 feet from the site boundary (Reference 10). The area is the home of Trillium Texanum, an endangered plant species that grows in seepage areas and a plant community composed of the water oak and the willow oak (Reference 12). Daingerfield State Park is four miles northeast of the site.

## **6. Other Regulatory Involvement**

There is no other known regulatory involvement concerning Texas & Northern. EPA conducted a PA Reassessment for Lone Star Steel. The site's location was Latitude 32°55'20"N, Longitude 94°42'57"W, 2.5 miles southeast of Lone Star, Texas.

## **7. Conclusions and Recommendations**

An unknown quantity of toxic metals has been placed in a landfill on-site. The type, number and location of other possible on-site SWMUs is unknown. There are residences within 100 feet of the plant's boundary, but this is not of concern because the low mobility potential of the known site contaminants make the probability of release to the air pathway low. There are no ground water targets and there is little use of the surface water along the migration pathway.

The FIT recommends that this site receive no further action.

## **8. FIT Management Review/Concurrence**

## **9. EPA Recommendation for Further Action**

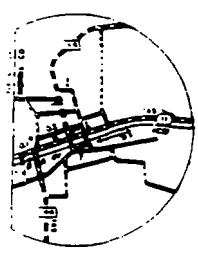
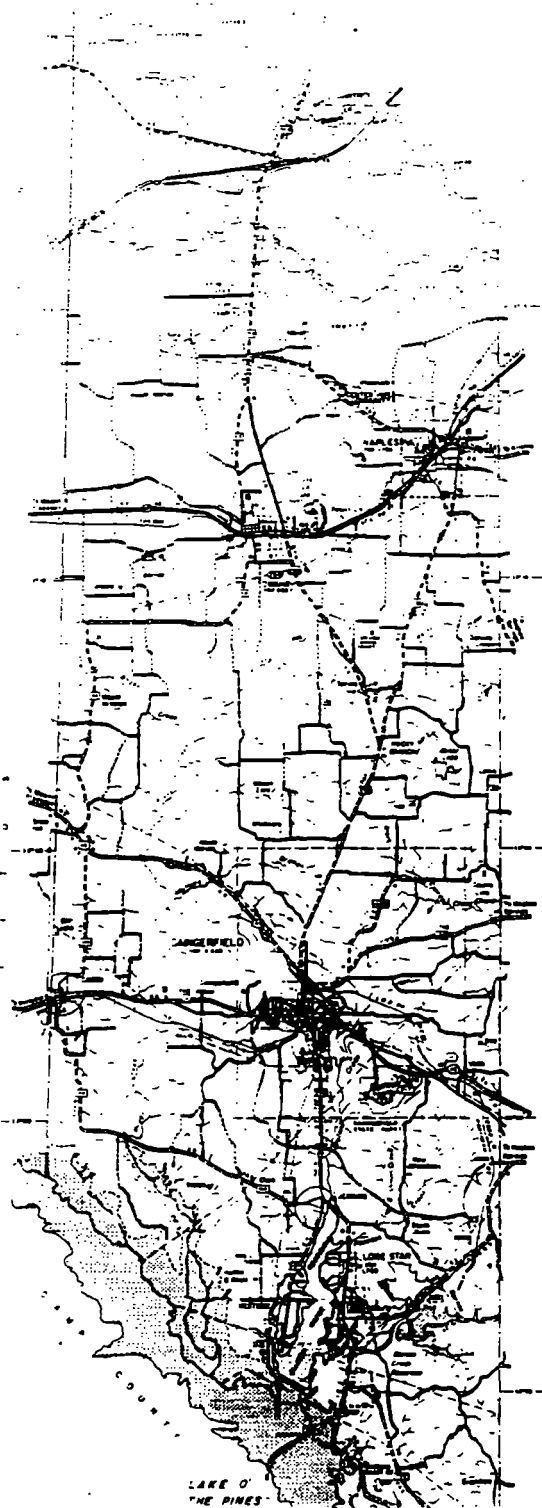


### Contact Log

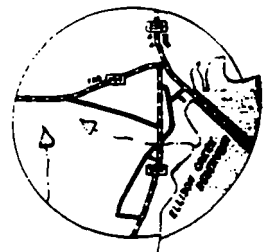
**Facility Name: Texas and Northern Lone Star Warehouse Company**  
**Facility ID: FTX0816PAA**

To Dorinda Sullivan	Texas Parks & Wildlife	(512) 387-4992	12-29-88	Submit maps
From Dorinda Sullivan	Texas Parks & Wildlife	(512) 387-4992	01-06-89	Endangered Species Cass & Morris Counties
	TWC	(512) 463-7830	12-20-88	Location of People Assoc. w/ T & N File
To Michael Morris	TWC	(512) 463-7761	12-30-88	Located
From Michael Morris	TWC	(512) 463-7761	12-30-88	Returned Call
To Michael Morris	TWC	(512) 463-7761	01-03-89	2nd Attemp
From Michael Morris	TWC	(512) 463-7761	01-03-89	Received Large Amt. of information about T & N
To Kieth Anderson	TWC	(214) 595-546	12-30-89	Request for Hydraulic Conductivity Data
From Kieth Anderson	TWC	(214) 595-5466	12-30-89	Returned Call
From Kieth Anderson	TWC	(214) 595-5466	01-03-89	Received a # of Ref.
To Ronda Hall	Morris County Tax Assessment	(214) 645-2446	01-10-89	No Contact
To Ronda Hall	Morris County	(214) 645-2446	01-10-89	Will send map w/ T & N overlay

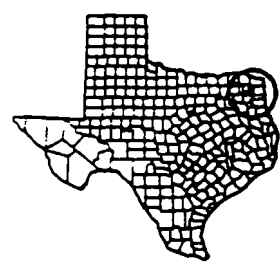
GENERAL HIGHWAY MAP  
MORRIS COUNTY  
TEXAS



CASON



JACKSON



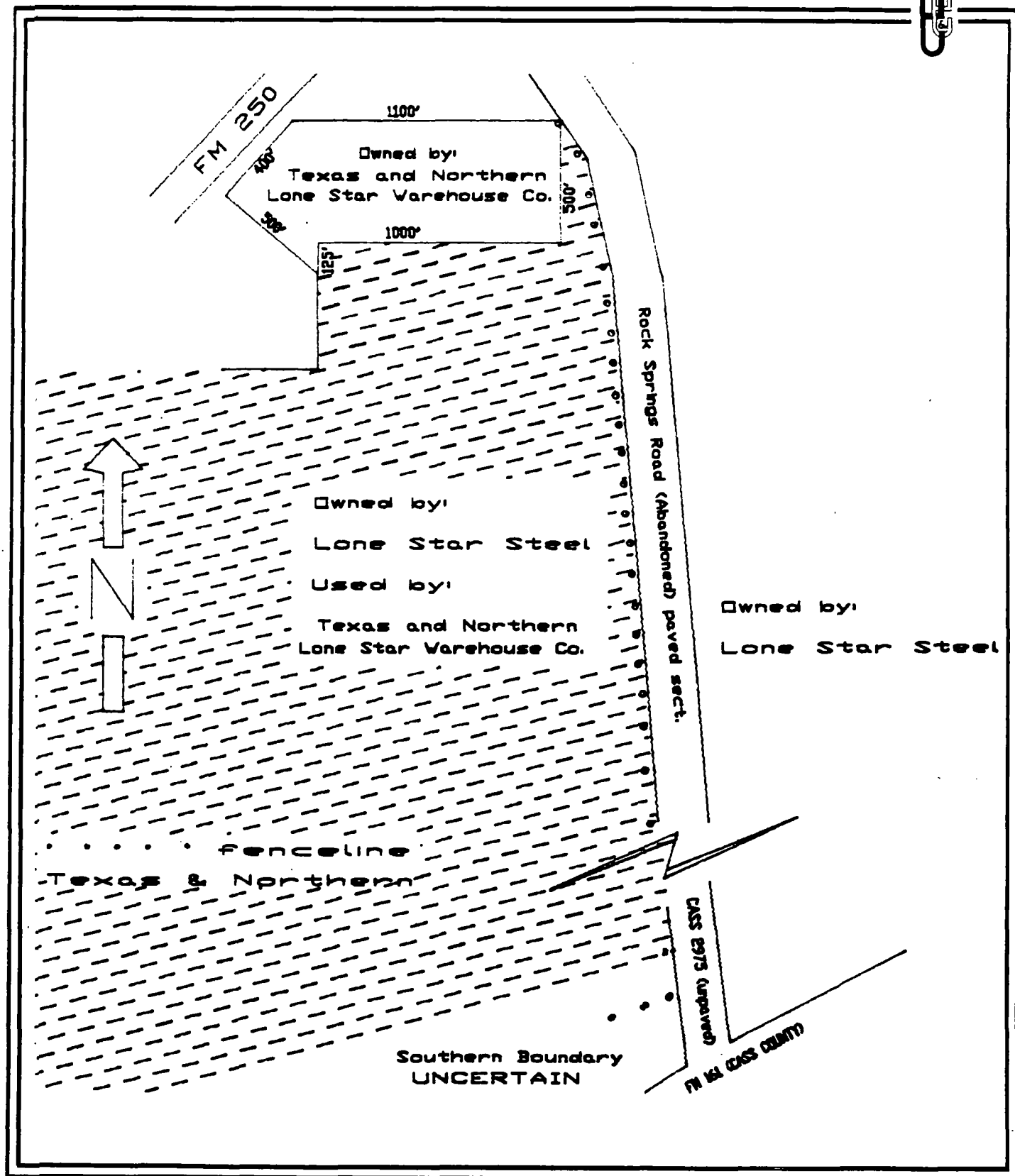


FIGURE 1  
SITE LOCATION  
TEXAS & NORTHERN LONE STAR WAREHOUSE CO.  
LONE STAR, TEXAS  
TXD981158249

TABLE 2  
HYDROGEOLOGIC INFORMATION <sup>1</sup>

STRATA NAME/DESCRIPTION	THICKNESS (ft.)	DEPTH TO WATER (ft.)	TYPE OF DISCONTINUITY <sup>2</sup>	SOURCE OF INFORMATION
Alluvium & Sparta Sand/ Sand, sandy shale and clay Yields small quantities of fresh water	17 feet	40 feet	None	Drilling Log Well #TN4 T & N Warehouse TWC Bulletin #6517
Weches Green sand/ green sand, sand, clay, pyrite Yelds small quantities of fresh water	32 feet	8 feet		Drillings logs Well #TN-1 to 4 TWC Bulletin #6517
Queen City Sand/fine to medium sand, shale, silt and impure lignite. Moderate to large quantities of water	210 feet	0 feet		TWC Bulletin #6517 Cypress Aquifer
Reeklaw Formation/ Sand and shale Moderate to large quantities of water	110 feet			Cypress aquifer
Carrizo Sand/ fine to coarse sand, silt and clay Moderate to large quantities of water	80 feet			

<sup>1</sup> Use additional sheets if necessary.

<sup>2</sup> Identify the type of discontinuity within four-miles from the site (e.g., river, strata "pinches out", etc.)

TABLE 2  
HYDROGEOLOGIC INFORMATION<sup>1</sup>

STRATA NAME/DESCRIPTION	THICKNESS (ft.)	DEPTH TO WATER (ft.)	TYPE OF DISCONTINUITY <sup>2</sup>	SOURCE OF INFORMATION
Wilcox Group Fine to medium Sand, shale, clay and lignite Yields small quantities of fresh water	770 feet			TWC Bulletin #6517
Midway Group Calcareous clay and some thin beds of fine sand or silt in upper part	760 feet			TWC Bulletin #6517
Kemp Clay Clay	220 feet			TWC Bulletin #6517
Carsicana marl Hard marl	30 feet			
Nacatoch Sand fine sand and marl. Sand beds thickest near top. Marl predominates near base	500 feet		Yields moderate quantities of fresh water N of Taco fault zone	TWC Bulletin #6517 Yields large quantities of very saline water S of Taco fault zone

1 Use additional sheets if necessary.

2 Identify the type of discontinuity within four-miles from the site (e.g., river, strata "pinches out", etc.)

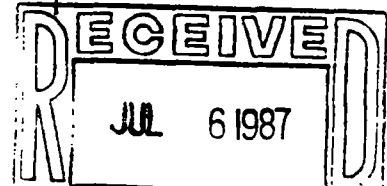
## Texas and Northern Lone Star Warehouse Company

### REFERENCES FOR PRELIMINARY ASSESSMENT

#### Reference

Number	Description of the Reference
01	Texas Water Commission, Interoffice Memorandum. To: Russ Kimble, Hazardous & Solid Waste. From: Kevin Phillips, District 5. July 3, 1987. Re: Analytical Results from Four Water Samples Taken From Two Monitoring Wells at T & N.
02	Ground Water Resources of Camp, Franklin, Morris and Titus Counties, Texas, Texas Water Commission, Bulletin #617. July, 1965.
03	Record of Wells, Morris County, Texas, Texas State Board of Water Engineers. June, 1942.
04	Harris, James A., Jr., FIT Geologist. PA Reassessment for Lone Star Steel Company, Morris County, Texas. TDD: F-6-8805-6, EPA #TXD007323397. September 26, 1988.
05	Texas Almanac, 1947-1948.
06	Solid Waste Compliance Monitoring Inspection Report. Texas Water Commission, TWC Reg. No. 33373. April 27, 1987.
07	Chain of Custody Tags SW06393-SW06397 and SW00430, District 5, Analytical Results for Samples Collected September 19, 1985 during a District 5 Solid Waste Sampling Inspection (lead, only). October 23, 1985.
08	ROC. To: Marriane Buchannon, Assistant General Manager, NE Texas Water District. From: James A. Harris, Jr., ICF/FIT Geologist. Re: Water Use. 15 September 1988.
09	Texas Water Commission, Agreed Order. August 13, 1986.
10	Morris County Appraisal District, Two blue line copies of Aerial maps (Portions of Morris and Cass Counties) Shows land owned by T & N & Lone Star S. Date: Received January 11, 1989. * Not included, Submitted on Request.
11	Characteristics of the Population, Number of Inhabitants, 1980 Census of the Population. U.S. Chamber of Commerce.
12	ROC. To: Michael Watson, FIT Chemist. From: Dorinda Sullivan, Texas Parks & Wildlife, Endangered Species. January 16, 1989.

REF.



## Texas Water Commission

## INTEROFFICE MEMORANDUM

FIELD OPERATIONS

TO : Russ Kimble, Chief, Reports & Management Section, DATE: 7-3-87  
 Hazardous & Solid Waste Division  
 THRU : Luis E. Campos, Hazardous & Solid Waste Coordinator,  
 Field Operations Division  
 FROM : Kevin Phillips, District 5  
 SUBJECT: T&N Lone Star Warehouse Co., Registration #33373

On March 30, 1987, I conducted an industrial solid waste inspection of the subject facility and samples were taken from two of the facility's RCRA landfill ground water monitoring wells. I was accompanied by Judy Yocom and Mark Snyder of Lone Star Steel, who are working as consultants for the T&N Lone Star Warehouse Co.

A total of four samples were taken from two monitoring wells. The wells tested were the monitoring wells which were installed via an agreed order from TWC dated August 13, 1986. Monitoring wells numbers 3 and 4 were the two wells sampled. Well #3 is located on the southeast corner of the landfill and well #4 is located approximately midway of the landfill on the west boundary. The designation of up-gradient or downgradient wells has not been made for the wells at this facility. Chain of custody tag numbers HM 10546 and SW 10900 were used for monitoring well #3 and chain of custody tag numbers HM 10547 and SW 10899 were used for monitoring well #4. Chain of custody tag numbers SW 10899 and SW 10900 indicated less than detectable limits for acid extractables, base neutral extractables, pesticides, and volatile organics (see attached sample results). Samples HM 10546 and HM 10547 were tested for cadmium, lead, barium, and chromium. See Table I for results:

Table I

Chain of Custody Tag #	Parameter	Parameter Value(mg/l)	(TAC 335) Max.Conc. of Consti- tuents for Groundwater(mg/l)
HM 10546	pH	6.0 s.u.	NA
	Conductivity	335 umhos	NA
	Cadmium (E.P.Tox.)	< .008	.01
	Lead "	.022	.05
	Barium "	.266	1.0
	Chromium "	.010	.05
HM 10547	pH	5.8 s.u.	NA
	Conductivity	840 umhos	NA
	Cadmium "	.010	.01
	Lead "	.040	.05
	Barium "	.056	1.0
	Chromium "	.642	.05

IOM- T&N Lone Star Warehouse Co.  
July 3, 1987  
Page 2

In the sample taken from monitoring well #4, the cadmium value is equal to the maximum concentration of constituents for ground water protection listed in TAC 335, which is .010 mg/l. Chromium analysis for this well measured .642 mg/l. This level exceeds the .05 mg/l value by ten times in TAC 335, maximum concentration of constituents for ground water protection.

Please review these results for appropriate action.

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Kevin Phillips, Inspector

*John W. Witherspoon*  

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John W. Witherspoon, Manager

Attachments



This map of Titus County, Texas, provides a comprehensive view of the region. It is bounded by latitude lines 33° 00' N and 33° 22' 30" N, and longitude lines 94° 45' W and 95° 15' W. The county is centrally located, with Franklin County to the north, Upshur County to the east, Wood County to the west, and Hopkins, Morris, Cass, and Marion counties to the south. Major geographical features include the Sulphur River to the north, the Colorado River to the west, and several creeks such as the Colorado, Jones, and Cypress. The map highlights major highways, including US 67 and State Highways 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. Key locations marked include Mt. Vernon, Winfield, Mt. Pleasant, Leesburg, Pittsburg, and Lone Star. The map also shows the locations of various towns and cities, as well as the boundaries of the county's various precincts. A scale bar at the bottom indicates distances in miles, ranging from 0 to 10 miles.

**EXPLANATION**

Stream-gaging station

### Well symbols

**Irrigation**

Public supply

**Industrial**

Spring

Domestic or stock

**Oil or gas test**

Unused or destroyed

Number indicates last three digits of well number  
Line above number indicates chemical  
analysis shown in Table II

Line above number indicates chemical analysis shown in Table II

A \_\_\_\_\_ A

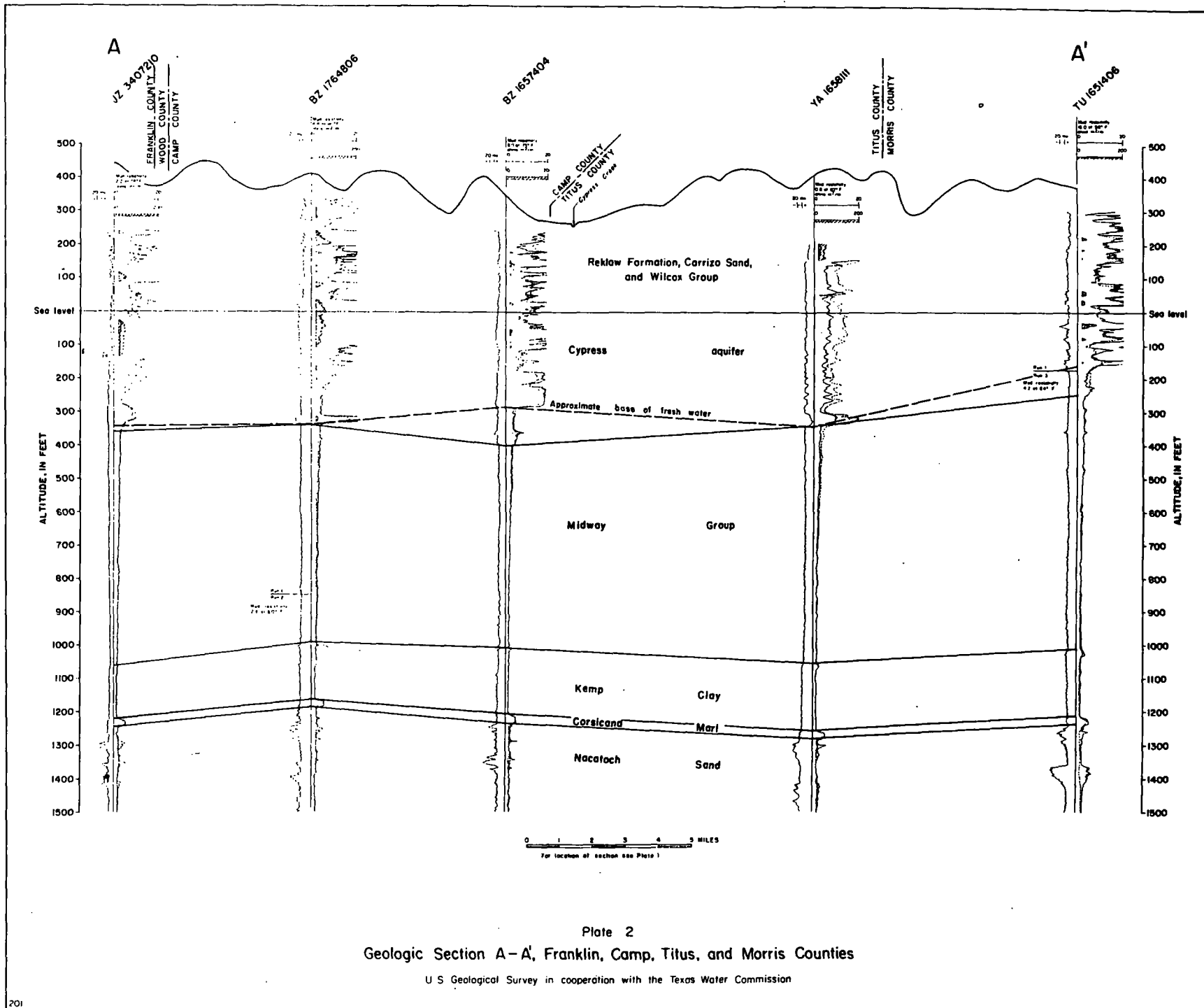
Line showing location of geologic section

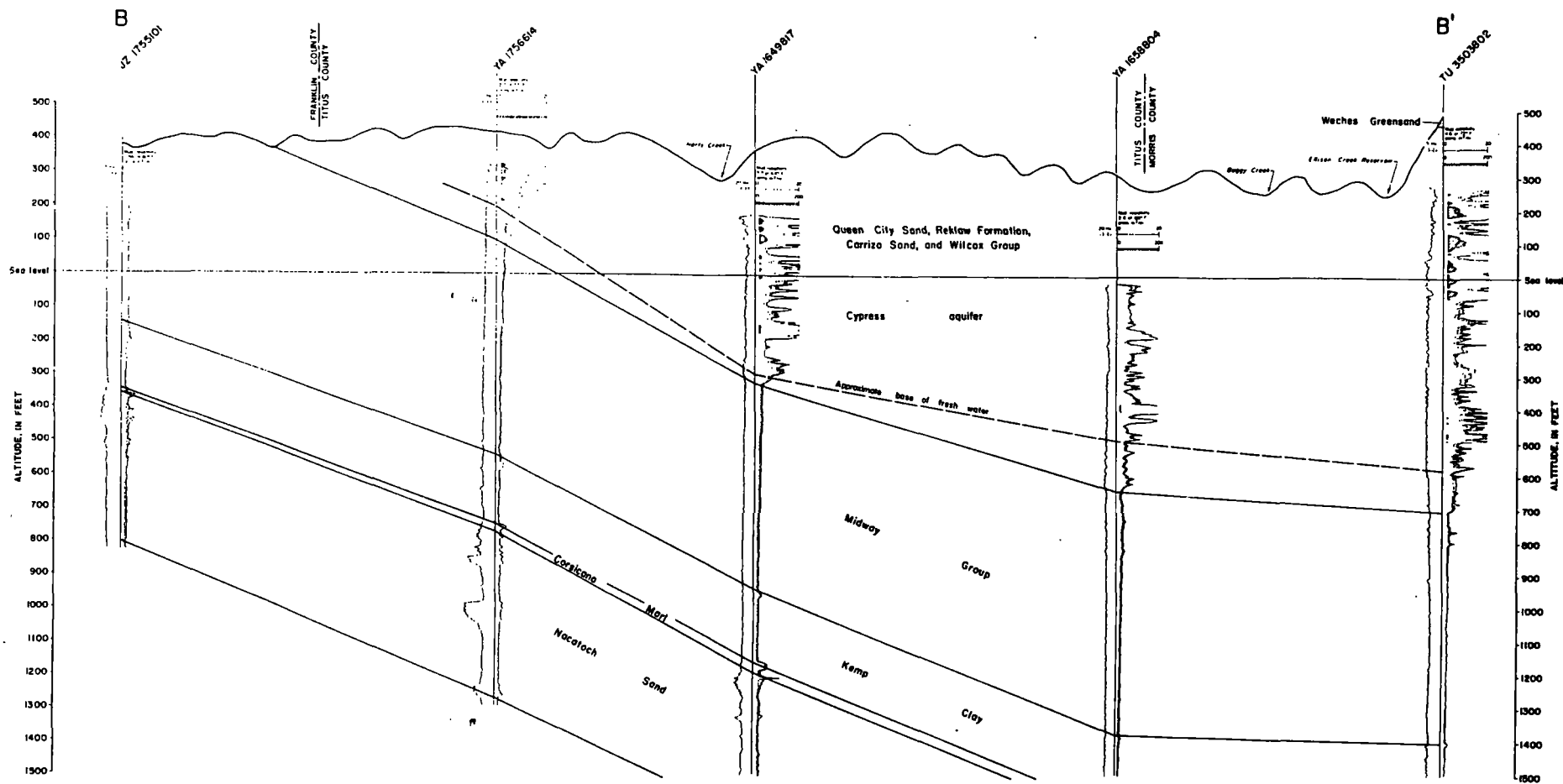
Line showing location of geologic section

## Plate 1

**Map Showing Locations of Wells, Springs, and Stream-Gaging Stations  
in Camp, Franklin, Morris, and Titus Counties**

U S Geological Survey in cooperation with the Texas Water Commission





0 1 2 3 4 5 MILES  
For location of section see Plate 1

Plate 3  
Geologic Section B-B', Franklin, Titus, and Morris Counties  
U S Geological Survey in cooperation with the Texas Water Commission

**IMPORTANT**

OPTIONS ■ WILL BE FOLLOWED UNLESS MARKED OTHERWISE

Name of Library: Texas Department of Water Resources		
Color No. <b>563</b>	Number of Bindings of Same Title <b>1</b>	LETTER SPINE EXACTLY AS SHOWN BELOW
Call Numbers: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes—Height _____ inches★		M194 RECORDS OF WELLS, MORRIS COUNTY, TEXAS
Lettering: <input checked="" type="checkbox"/> White <input type="checkbox"/> Black <b>gold</b>		
Bindery Use Only: HT _____ TH <b>13</b> WR _____		
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MORRIS COUNTY, TEXAS

Records of wells and springs, drillers' logs, water analyses,  
and map showing locations of wells and springs

TEXAS STATE BOARD OF WATER ENGINEERS

C. S. Clark, Chairman

A. E. Dunlap, Member

J. W. Pritchett, Member

Prepared in cooperation with the United States  
Department of the Interior, Geological Survey

June 1942

MORRIS COUNTY, TEXAS

By

C. R. Follett

This publication contains records of 102 wells and springs, drillers' logs of 7 wells and the results of chemical analyses of water from 87 wells in Morris County, Texas. The records were collected from March 11 to 24, 1942 by C. R. Follett.

The analyses were made by chemists employed on Work Projects Administration Project No. 17276 under the direction of Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry, The University of Texas and W. W. Hastings, Chemist of the Quality of Water Division of the Federal Geological Survey. The results of all of the analyses are tabulated in parts per million and 16 of them are also given in milligram equivalents per liter for the convenience of those who prefer this form of expressing the quality of water.

The records serve as a guide to land owners, well drillers and others who need information regarding wells, the depth to ground water in different parts of the county, and the quality and chemical character of water yielded by the wells. They provide useful information for more detailed investigations that are being made by the Texas State Board of Water Engineers in cooperation with the Federal Geological Survey in many parts of Texas.

A limited number of copies of this release are available for free distribution. They may be obtained by addressing a request to Mr. C. S. Clark, Chairman, Texas State Board of Water Engineers, 302 West 15th Street, Austin, Texas.

This release was mimeographed by employees of the Work Projects Administration Project No. 17276.

Records of wells and springs in Morris County, Texas  
All wells were dug unless otherwise stated in remarks

Well No.	Distance from Omaha	Owner	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
1	8 $\frac{1}{2}$ miles north	Dutch Love	1922?	65	8	1.4
2	7 $\frac{1}{4}$ miles north	C. W. Forsyth	--	39	8	3.2
3	8 miles north	C. D. Browne	1942	49	3	--
4	do.	do.	1941	96	3	--
5	8 $\frac{1}{2}$ miles north	do.	1937	5,014	13- 5/8	--
6	8 $\frac{1}{2}$ miles northeast	--	--	--	--	--
20	5 $\frac{1}{2}$ miles northeast	C. E. Heard	Old	30	24	--
21	3 $\frac{1}{4}$ miles northeast	Elic Norris Est.	1939	39	30	2.6
22	4 $\frac{1}{2}$ miles northeast	Mrs. H. J. Vissering	Old	22	36	2.1
23	In Naples	City of Naples No. 2	1935	450	13	--
24	do.	City of Naples No. 1	1925?	400+	12	--
25	5 $\frac{1}{2}$ miles northeast	J. A. Higgins	Old	30	36	--
40	1 $\frac{1}{4}$ miles east	Joe Parham	1922	13	24	2.1
41	In Omaha	Thomas & Ware Water Co.	1930	260	6	--
42	2 $\frac{1}{4}$ miles north	T. I. Pate	1930?	64	36	4.0
43	3 $\frac{1}{2}$ miles northwest	Mrs. R. H. Motley	1926?	27	30	2.9
44	3 $\frac{1}{2}$ miles north	Mrs. W. J. Moore	Old	39	42	1.4
45	5 $\frac{1}{4}$ miles north	Union Chapel School	1840?	26	30	3.2
46	5 $\frac{1}{2}$ miles northwest	B. Settles	1916?	43	30	2.7
47	5 $\frac{1}{4}$ miles northwest	J. W. Rogers	1935	96	6	1.6
48	3 $\frac{1}{4}$ miles northwest	Mrs. Annie L. Kline	1885?	25	36	--

a/ Plus (+) indicates water level is above ground.

b/ T, turbine; A, air or natural gas lift; C, cylinder; E, electric; W, windmill; H, hand. Number indicates horsepower.



Chemical analyses of water from most of these wells and springs are shown in a table of analyses on pages 15 to 19.

Height of measuring point above ground (ft.)	Water level		Method of lift b/	Use of water c/	Remarks
	Well No.	Belcw measuring point (ft.) a/	Date of measure- ment		
1.4	1	61.52	Mar. 17, 1942	H	D,S Bored. Tile casing.
3.2	2	36.51	do.	H	D,S Do.
--	3	--	--	None	N Drilled; seismograph test hole. Water sand reported from 30 to 49 feet.
--	4	--	--	None	N Drilled; seismograph test hole. Water sand reported from 30 to 49 and 85 to 96 feet.
--	5	+	Mar. 17, 1942	Flows	N Drilled; oil test. Estimated flow 5 gallons a minute 1 foot above ground.
--	6	+d/	--	Flows	N Drilled; oil test. Flow of salty water reported.
--	20	d/15	--	H	D,S Brick curbing.
6	21	33.91	Mar. 18, 1942	H	D,S Wood curbing.
1	22	5.67	do.	C,H	S Tile curbing.
	23	d/123	1935	T,E, 15	P Drilled to 864 feet and plugged back. Layne-Texas Company drillers. Screens from 297 to 300, 310 to 354 and 397 to 430 feet. Underreamed to diameter of 30 inches and gravel packed from 29 to 450 feet. Drawdown reported 155 feet while pumping 88 gallons a minute when drilled. See log.
	24	--	--	None	N Drilled. Screen at about 300 feet. Formerly supplied City of Naples.
	25	d/ 20	--	H	D,S
	40	6.22	Mar. 20, 1942	C,E,H	D,S Tile curbing.
	41	d/ 60	--	A,E, 10	P Drilled. Supplies City of Omaha. Casing perforated in lowermost 40 feet. Reported yield 100 gallons a minute. Temperature 66° F.
	42	55	Mar. 18, 1942	H	D,S No curbing.
	43	24.51	Mar. 17, 1942	H	D,S Brick curbing.
	44	24.93	Mar. 18, 1942	H	S Do.
	45	8.50	Mar. 17, 1942	H	D,S,P Do.
	46	40.86	do.	H	D,S Do.
	47	60.97	do.	H	D,S Bored. Tile casing.
	48	--	--	H	D,S Rock curbing.

c/ P, public supply; Ind, industrial; D, domestic; S, stock; N, none.

d/ Water level reported by owner or tenant.

Records of wells and springs in Morris County--Continued

Well No.	Distance from Omaha	Owner	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
49	2 $\frac{1}{4}$ miles northwest	S. Patterson	1935?	115	6	--
50	1 $\frac{1}{2}$ miles northwest	Sam Smith	--	19	8	2.1
51	1 $\frac{1}{4}$ miles northwest	Mrs. Annie Smith	1890?	76	30	0.0
52	3 $\frac{1}{4}$ miles northwest	A. W. Hays	1921?	48	6	4.0
70	2 $\frac{1}{2}$ miles southwest	W. B. Robertson	1900?	50	36	2.9
71	3 $\frac{1}{2}$ miles southwest	R. Curry	1900?	45+	36	--
72	5 miles southwest	Johnson's Chapel School	1932	17	36	2.9
73	5 $\frac{1}{2}$ miles southwest	T. C. Connor	1922?	23	36	6.5
74	3 miles southwest	Mrs. R. H. Talley	1922	22	36	5.0
75	2 miles southwest	B. J. Cason	1916	20	36	2.3
76	2 miles southeast	W. H. Witt	1903	37	36	--
77	3 miles southeast	William's Chapel School	--	19	42	2.8
78	4 $\frac{1}{2}$ miles south	I. Forsyth	Old	21	42	1.5
79	5 $\frac{1}{2}$ miles southeast	Rocky Branch School	Old	30	48	--
80	4 $\frac{1}{2}$ miles southeast	Kan Thigpen	1917?	25	36	2.8
81	3 $\frac{1}{2}$ miles southeast	Plainview School	--	26	36	2.6
82	3 miles east	W. M. and Clara Smith	1936	4,105	10	--
83	4 $\frac{1}{2}$ miles east	R. P. Lowery	--	20	36	3.2
84	4 $\frac{1}{2}$ miles east	Edwards Est.	Old	17	42	4.8
85	5 $\frac{1}{2}$ miles southeast	J. B. Irvin	1916	19	36	1.6

Well No.	Distance from Daingerfield	Owner	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
100	7 miles northwest	James Howel	--	18	36	3.0
101	6 miles northwest	Joe Justiss	1937	79	42	1.7

Well No.	Water level		Method of lift	Use of water	Remarks
	Below measuring point (ft.) a/	Date of measurement			
49	--	--	C,W	D,S	Drilled. Tile casing.
50	12.91	Mar. 20, 1942	H	D	Bored. Tile casing.
51	42.54	do.	None	N	Rock curbing.
52	41.14	Mar. 20, 1942	H	D,S	Bored. Tile casing.
70	4.69	Mar. 16, 1942	H	D,S	Rock curbing.
71	--	--	C,H	D,S	
72	10.58	Mar. 19, 1942	H	D,S,P	Brick curbing to 3 feet.
73	13.11	Mar. 16, 1942	H	D,S	Reported to fail during droughts.
74	17.71	do.	H	D,S	
75	6.91	do.	H	D,S	
76	d/ 15	--	H	D,S	No curbing.
77	14.95	Mar. 20, 1942	H	P	Do.
78	13.63	Mar. 16, 1942	H	D,S	
79	--	--	C,H	P	Rock curbing.
80	14.39	Mar. 11, 1942	H	D,S	
81	15.19	do.	H	D,S	
82	--	--	None	N	Drilled; oil test, Stephen J. Rotond, driller. Electrical log from 600 to 1,751 feet, in files of Texas Board of Water Engineers, shows thin sand between 655 and 665 feet. See
83	5.35	Mar. 11, 1942	H	D,S	No curbing. partial driller's log.
84	8.68	do.	H	D,S	Do.
85	14.43	do.	H	D,S	

Well No.	Water level		Method of lift	Use of water	Remarks
	Below measuring point (ft.) a/	Date of measurement			
100	14.04	Mar. 19, 1942	H	D,S	
101	29.61	Mar. 16, 1942	H	D,S	Bored from 34 to 79 feet. Reported that no water was encountered below 30 feet. Supply reported rather small.

Records of wells and springs in Morris County--Continued

Well No.	Distance from Daingerfield	Owner	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
102	6 $\frac{1}{2}$ miles northwest	Hays Johnson	Old	22	48	3.2
103	5 $\frac{3}{4}$ miles northwest	Connor Bros.	1936?	--	--	--
104	5 $\frac{1}{4}$ miles northwest	do.	1920?	16	36	--
105	4 $\frac{1}{2}$ miles west	J. C. Tittle	1917	17	36	4.0
106	3 $\frac{3}{4}$ miles northwest	H. Thigpen	1922?	--	10	--
107	5 miles northwest	Sunview School	1938	25	36	2.4
108	4 miles northwest	Mrs. Sallie Sibley	1932	4,000	--	--
109	do.	Mount Moriah School	1935	20	36	3.1
110	5 $\frac{3}{4}$ miles northwest	T. C. Connor	1935	380	4	--
111	5 $\frac{1}{2}$ miles northwest	Connor Bros.	--	21	42	2.0
112	5 miles north	Mount Zion School	1935	26	24	2.5
113	4 miles northwest	W. C. Whitmere	1917?	27	42	2.5
114	2 miles northwest	Ed Wallace	--	27	42	3.0
115	2 $\frac{1}{4}$ miles north	Connor Bros.	Old	29	36	4.5
130	4 miles north	J. A. Martin	1937	21	36	2.7
131	5 $\frac{1}{2}$ miles northeast	Eugene Hall	1939	4,302	--	--
132	5 $\frac{3}{4}$ miles northeast	J. B. Hall	1920	18	30	4.4
133	4 $\frac{1}{2}$ miles northeast	Mrs. Gladys Wakefield	Old	19	36	5.0
134	3 $\frac{3}{4}$ miles northeast	T. E. Goodwin	1906	25	36	--
135	2 $\frac{1}{2}$ miles northeast	Irvin Bros.	Old	29	36	3.4
136	3 $\frac{3}{4}$ miles northeast	J. W. Smith	--	30	36	--
137	do.	do.	1928	27	30	2.6
138	3 miles northeast	Bradfield's Chapel School	--	22	36	3.1
139	3 $\frac{3}{4}$ miles east	J. G. Wallis	--	18	36	2.2

Well No.	Water level		Method of lift	Use of water	Remarks
	Below measuring point (ft.) a/	Date of measurement			
102	14.02	Mar. 23, 1942	H	D,S	No curbing. Reported to fail during droughts.
103	--	--	None	N	Drilled; oil test.
104	d/ 6	--	H	D,S	
105	14.30	Mar. 24, 1942	H	D,S	
106	+	Mar. 19, 1942	Flows	S	Drilled; oil test. Estimated flow 5 gallons a minute at ground level.
107	25.30	do.	H	P	Supply reported rather small.
108	--	--	None	N	Drilled; oil test; J. E. Crosbie Inc., driller See partial driller's log.
109	19.21	Mar. 23, 1942	H	P	
110	+	Mar. 16, 1942	Flows	S	Converted oil test. Drilled to 4,203 feet and plugged back. Estimated flow 30 gallons a minute in 1942. Temperature 67° F. See partial driller's log.
111	20.96	do.	H	D,S	No curbing.
112	22.93	do.	H	P	Brick and tile curbing.
113	22.98	do.	H	D,S	No curbing.
114	28.48	Mar. 23, 1942	H	D,S	Do.
115	30.67	do.	H	D,S	Do.
130	19.21	Mar. 20, 1942	C,E,H	D,S	Tile curbing from 12 to 21 feet.
131	--	--	None	N	Drilled; oil test. Electrical log from 200 to 1,047 feet, in files of Texas Board of Water Engineers, shows sands between 200 and 240, 305 and 315, 375 and 460, 495 and 505, and 570 and 620 feet.
132	11.74	Mar. 19, 1942	H	D,S	
133	13.23	Mar. 13, 1942	H	D,S	
134	d/ 5	--	H	D,S	No curbing.
135	19.56	Mar. 13, 1942	H	D,S	Do.
136	d/ 25	--	C,H	D,S	
137	9.79	Mar. 13, 1942	H	D,S	
138	19.62	do.	H	D,S	No curbing.
139	14.06	do.	H	D,S	

Records of wells and springs in Morris County--Continued

Well No.	Distance from Daingerfield	Owner	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
140	3 $\frac{3}{4}$ miles east	J. G. Wallis	--	9	36	2.0
160	3 $\frac{1}{4}$ miles southeast	Oak Grove School	--	21	36	2.0
161	4 miles southeast	Rock Hill School	--	19	36	2.7
162	2 $\frac{1}{2}$ miles southeast	M. C. Hervey	--	Spring	--	--
163	1 $\frac{3}{4}$ miles southeast	Daingerfield State Park	1935	493	6	--
164	1 $\frac{1}{2}$ miles south	Oscar Irvin	1937?	36	36	2.9
165	2 $\frac{1}{2}$ miles southwest	J. M. Holt	1902	65	36	--
166	do.	do.	--	Spring	--	--
167	1 mile southwest	M. F. Gaffney	Old	15	36	2.3
168	In Daingerfield	Thomas & Ware Water Co.	1924?	365	10	--
169	do.	do.	1939	385	10	--
170	do.	City of Daingerfield. No. 1	1939	386	13- 7/8	--
171	1 mile north	T. N. Jones	1926	25	42	--
180	In Cason	McGrede Est.	--	17	24	2.5
181	5 $\frac{1}{2}$ miles southwest	C. S. Turner	--	23	42	2.8
182	2 $\frac{1}{2}$ miles west	Connor Bros.	--	27	36	2.9
183	2 $\frac{3}{4}$ miles southwest	Sycamore School	--	Spring	--	--
184	do.	do.	1938	23	26	1.0
185	3 $\frac{1}{2}$ miles southwest	Connor Bros.	1931	4,004	10	--
186	3 $\frac{3}{4}$ miles southwest	Miller Est.	--	51	36	2.8

Well No.	Water level		Method of lift	Use of water	Remarks
	Below measuring point (ft.) a/	Date of measurement			
140	5.46	Mar. 13, 1942	H	D,S	No curbing.
160	13.75	Mar. 24, 1942	H	P	
161	18.59	Mar. 12, 1942	H	D,S,P	Tile curbing from 11 to 19 feet.
162	+	Mar. 23, 1942	Flows	D	At head of gully near hilltop. Estimated flow 2 gallons a minute. Temperature 57° F.
163	d/ 90	1935	C,E, 5	P	Drilled. Cased to bottom; 40 feet of casing perforated at 403 to 460 feet. Reported draw-down 25 feet while pumping 100 gallons a minute when drilled. Formerly supplied CCC camp; now supplies park building at lake front. See log
164	36.17	Mar. 23, 1942	H	D,S	
165	--	--	C,H	D,S	Wood curbing from 53 to 65 feet.
166	+	Mar. 13, 1942	Flows	D,S	In creek bank. Measured flow 5 gallons a minute. Temperature 54° F.
167	13.29	do.	H	D,S	No curbing.
168	--	--	None	N	Drilled. Formerly supplied City of Daingerfield. Reported yield 80 gallons a minute.
169	--	--	T,E, 10	N	Drilled; J. C. Boling driller. Formerly supplied City of Daingerfield. Reported yield 110 gallons a minute. Cased to 385 feet; perforated from 305 to 365 feet. Gravel packed
170	d/ 210	1939	T,E, 15	P	Drilled to with 16 cubic yards of gravel. 654 feet and plugged back; Layne-Texas Company drillers. Screens from 258 to 279, 301 to 321 and 357 to 378 feet. Underreamed to diameter of 30 inches and gravel packed from 231 to 386 feet. Reported drawdown 47 feet while pumping 140 gallons a minute. Temperature 60° F. See log
171	d/ 20	--	C,E,	D,S	No curbing.
180	7.95	Mar. 13, 1942	C,E,H	D,S	Tile curbing.
181	18.56	do.	H	D,S	Wood curbing from 12 to 23 feet.
182	26.77	Mar. 24, 1942	H	D,S	Brick curbing to 3 feet; wood curbing from 22 to 27 feet.
183	+	Mar. 13, 1942	Flows	P	In creek bank. Estimated flow $\frac{1}{2}$ gallon a minute. Temperature 53° F.
184	5.20	do.	H	D,P	Tile curbing. Reported to fail during drought
185	--	--	None	N	Drilled; oil test. See partial driller's log.
186	50.58	Mar. 12, 1942	H	D,S	Wood curbing from 35 to 51 feet.

Records of wells and springs in Morris County--Continued

Well No.	Distance from Daingerfield	Owner	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
187	4 $\frac{1}{2}$ miles southwest	W. H. Johnston	1922?	37	36	2.3
188	5 $\frac{1}{2}$ miles southwest	Rosenwald School	1927	22	24	2.7
189	6 $\frac{1}{2}$ miles southwest	Walcott Est.	1927	--	12	--
190	5 $\frac{1}{2}$ miles southwest	T. C. Connor	1941	--	--	--
191	6 miles southwest	do.	1936	16	24	0.3
210	4 $\frac{3}{4}$ miles south	Jenkins School	1915?	28	36	4.0
211	6 $\frac{3}{4}$ miles south	Arkansas-Louisiana Gas Co. No. 1	1937	336	6	--
212	do.	Arkansas-Louisiana Gas Co. No. 2	1937	333	4	--
213	7 $\frac{1}{2}$ miles south	J. C. Cock	1941	31	30	3.0
214	9 miles south	Marble Stone School	1935	40	36	3.7
215	6 $\frac{1}{2}$ miles south	Iron Bluff School	--	29	36	3.3
216	5 $\frac{1}{2}$ miles southeast	Charlie Jenkins	--	40	36	3.2
217	6 miles southeast	-- McCane	--	26	42	3.2
218	7 miles southeast	S. Turner	1920?	49	42	3.7
219	do.	do.	--	Spring	--	--

a/ Plus (+) indicates water level is above ground.

b/ T, turbine; A, air or natural gas lift; C, cylinder; E, electric; W, windmill; H, hand. Number indicates horsepower.



Well No.	Water level		Method of lift	Use of water	Remarks
	Below measuring point (ft.) a/	Date of measurement			
187	34.87	Mar. 12, 1942	H	D,S	Wood curbing from 21 to 37 feet.
188	21.43	do.	H	D,S	Tile curbing.
189	+	do.	Flows	D,S	Drilled; oil test. Estimated flow 3 gallons a minute 1 foot above ground. Temperature 66° F.
190	--	--	None	N	Drilled; oil test.
191	14.10	Mar. 12, 1942	H	D,S	Tile curbing.
210	26.62	Mar. 23, 1942	H	P	Brick curbing to 3 feet; tile curbing from 19 to 28 feet.
211	--	--	A	Ind	Drilled. Estimated yield 50 gallons a minute.
212	--	--	A,E	D,Ind	Drilled. In conjunction with well 211 supplies Terry compressor station.
213	30.31	Mar. 23, 1942	H	D,S	Wood curbing from 7 to 30 feet.
214	37.91	Mar. 12, 1942	H	P	
215	27.18	do.	H	D,S	No curbing.
216	24.22	do.	H	D,S	Wood curbing in bottom.
217	12.92	do.	H	D,S	
218	34.23	do.	H	D,S	No curbing.
219	+	do.	Flows	D,S	On bank of creek. Estimated flow 1 gallon a minute. Temperature 61° F.

c/ P, public supply; Ind, industrial; D, domestic; S, stock. N, none.

d/ Water level reported by owner or tenant.

Table of drillers' logs of wells in Morris County, Texas

	Thickness (feet)	Depth (feet)
<u>Well 23</u>		
City of Naples No. 2, in Naples.		
Red clay	10	10
Blue clay	51	61
Shale	46	107
Hard shale	50	157
Shale, lignite and fine-grained sand	91	248
Rock	1	249
Hard shale	49	298
Sand	10	308
Shale with layers of sand	38	346
Shale	57	403
Sand	33	436
Shale	40	476
Shale with layers of rock	51	527
Shale	66	593
Sand	7	600
Shale	264	864
Drilled and plugged back to 450 feet.		

<u>Well 82, partial log</u>		
W. M. and Clara Smith, 3 miles east of Omaha. Elevation, 430 feet.		
Soil and surface material	67	67
Sand and shale	573	640
Water sand	20	660
Sand, shale and boulders	1607	2267
Chalk, shale, gumbo and shells	1838	4105
TOTAL DEPTH		4105

<u>Well 108, partial log</u>		
Mrs. Sallie Sibley, 4 miles northwest of Daingerfield. Elevation, 334 feet.		
Clay	30	30
Sand and shale	310	340
Sand rock	1	341
Shale	24	365
Sand	9	374
Shale	266	640
Sand and gravel	40	680
Shale and shells	70	750
Sand rock	2	752
Shale, sand and shells	212	964
Shale	41	1005
Shale, sandy shale and shells	1414	2419
Chalk, shale, sandy shale and shells	1581	4000
TOTAL DEPTH		4000

	Thickness (feet)	Depth (feet)
<u>Well 110, partial log</u>		
T. C. Connor, $5\frac{1}{4}$ miles northwest of Daingerfield. Elevation, 294.		
Surface clay and sand	47	47
Sand rock	6	53
Rock	23	76
Lignite and hard broken shale	12	88
Soft coarse lime	12	100
Solid lignite	12	112
Shale and boulders	183	295
Water sand	29	324
Shale and boulders	305	629
Sandy shale and boulders	40	669
Shale	129	798
Rock	8	806
Shale	8	814
Shale and boulders	132	946
Shale, sandy shale and lime	1399	2345
TOTAL DEPTH DRILLED		4203
Drilled and plugged back to 380 feet.		

<u>Well 163</u>		
Daingerfield State Park, $1\frac{3}{4}$ miles south east of Daingerfield.		
Red clay	43	43
Sandy red shale	22	65
Iron ore	1	66
Brown clay	21	87
Sand and gravel	20	107
Blue shale	45	152
Hard packsand	8	160
Brown shale	65	225
Sandy shale	88	313
Brown shale	45	358
Sandy brown shale	23	381
Brown shale	22	403
Water sand	17	420
Hard sand	6	426
Water sand	15	441
Brown shale	9	450
Water sand	10	460
Hard sand	18	478
Shale	15	493

<u>Well 170</u>		
City of Daingerfield No. 1, in Daingerfield.		
Sandy red clay	25	25
(Continued on next page)		

Table of drillers' logs of wells in Morris County--Continued

		Thickness	Depth			Thickness	Depth
		(feet)	(feet)			(feet)	(feet)
Well 170--Continued				Well 185, partial log			
Sand 7 32				Connor Bros., $3\frac{1}{2}$ miles southwest of			
Yellow clay 37 69				Daingerfield. Elevation, 450.			
Black shale 23 92				Surface sand 20 20			
Sandy shale 23 115				Shale 48 68			
Sand and lignite 16 131				Shale and boulders 112 180			
Shale 5 136				Packsand 210 390			
Sand and lignite 25 161				Lime 13 403			
Sand 21 182				Shale 77 480			
Rock 1 183				Shale and shells 264 744			
Shale 47 230				Lime 8 752			
Sand 44 274				Shale 198 950			
Rock 2 276				Sand 45 995			
Sand 55 331				Rock 3 998			
Hard pan 2 333				Shale and boulders 382 1380			
Sand 53 386				Sticky shale 10 1390			
Shale 23 409				Shale and boulders 68 1458			
Sandy shale 66 475				Lignite and sand 32 1490			
Rock 1 476				Shale, gumbo and sticky			
Hard blue shale 67 543				or sandy shale 1100 2590			
Shale 27 570				Chalk, shale and shells 1414 4004			
Rock 7 577				TOTAL DEPTH 4004			
Black shale 77 654							
Drilled and plugged back to 386 feet.							

s south-

43  
65  
66  
87  
107  
152  
160  
225  
313  
358  
381  
403  
420  
426  
441  
450  
460  
478  
493

nger-

Partial analyses of water from wells and springs in Morris County, Texas

Analyzed at The University of Texas under the direction of W. W. Hastings, Chemist, U. S. Department of the Interior, Geological Survey, and Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry. Results are in parts per million. Well numbers correspond to numbers in table of well records.

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub> (calc.)
c/ 1	Dutch Love	55	Mar. 17, 1942	2,702	251	51	251	6	112	302	0.9	1,031	836
2	C. W. Forsyth	39	do.	1,046	134	50	129	12	584	143	.3	.0	541
3	C. D. Browne	49	do.	8,184	82	13	3,126	427	2	4,750	.9	-	258
c/ 20	C. E. Heard	30	Mar. 18, 1942	242	14	4.6	75	171	12	34	-	18	53
21	Elic Norris Est.	39	do.	141	20	7.1	21	67	18	28	-	14	79
22	Mrs. H. J. Vissering	22	do.	628	42	37							200
c/ 23	City of Naples No. 2	450	Mar. 11, 1942	459	4.8	1.0	183	317	20	94	.2	.0	16
25	J. A. Higgins	30	Mar. 20, 1942	28	2.8	1.0	5.8	6	8	7.0	-	.0	11
40	Joe Parham	13	do.	55	.8	2.2	17	6	3	28	-	1.0	11
c/ 41	Thomas and Ware Water Co.	260	Mar. 11, 1942	104	8.8	2.2	21	6	17	22	.0	30	31
42	T. I. Pate	64	Mar. 18, 1942	148	22	3.2	29	104	2	18	-	23	67
43	Mrs. R. H. Motley	27	Mar. 17, 1942	136	10	6.8	26	43	7	25	-	40	54
44	Mrs. W. J. Moore	39	Mar. 18, 1942	6,554	776	466	746	372	2,733	1,650	.1	-	3,857
45	Union Chapel School	26	Mar. 17, 1942	60	5.2	1.9	15	43	12	3.0	.2	1.0	21
46	B. Settles	43	do.	587	102	45	59	311	15	204	-	9.0	437
47	J. W. Rogers	86	do.	373	65	32	33	232	5	120	-	4.0	295
c/ 48	Mrs. Annie L. Kline	25	do.	78	7.2	3.4	20	79	2	5.0	-	1.0	32
50	Sam Smith	19	Mar. 20, 1942	59	4.8	2.2	12	12	2	14	-	18	21
52	A. W. Hays	48	do.	119	6.0	5.8	23	12	2	26	-	50	39
70	W. B. Robertson	50	Mar. 16, 1942	37	1.6	4.6	5.1	12	12	8.0	-	.0	23
71	R. Curry	45±	Mar. 17, 1942	136	22	5.8	16	43	18	29	-	24	79

a/ Less than 3 parts per million.

b/ Analyzed by the Texas State Board of Health

c/ Analyses of water from selected wells and springs are

a/ Less than 3 parts per million.  
b/ Analyzed by the Texas State Board of Health.

c/ Analyses of water from selected wells and springs are given in milligram equivalents per liter on page 19.

Partial analyses of water from wells and springs in Morris County--Continued  
Results are in parts per million

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub> (calc.)
72	Johnson's Chapel School	17	Mar. 19, 1942	37	7.2	3.4	1.4	24	5	6.5	0.0	1.0	32
73	T. C. Connor	23	Mar. 19, 1942	51	1.2	3.4	11	10	7	12	1	6.0	17
c/ 74	Mrs. R. H. Talley	22	do.	30	2.8	2.2	2.8	.0	2	6.0	-	14	16
75	B. J. Cason	20	do.	94	5.6	4.6	19	6	12	26	-	24	33
76	W. H. Witt	37	Mar. 20, 1942	90	7.6	3.2	14	6	2	10	-	50	32
77	William's Chapel School	19	do.	39	5.2	1.9	1.2	.0	26	3.5	.1	1.0	21
78	I. Forsyth	21	Mar. 16, 1942	268	16	16	40	.0	5	71	-	120	105
79	Rocky Branch School	30	Mar. 19, 1942	55	2.8	2.2	14	18	12	14	.1	.0	16
c/ 80	Kan Thigpen	25	Mar. 11, 1942	287	11	27	32	.0	15	98	-	104	137
81	Plainview School	26	do.	98	8.0	4.4	17	6	60	5.0	.1	.5	38
83	R. P. Lowery	20	do.	81	11	3.6	15	55	7	14	-	3.0	42
84	Edwards Est.	17	do.	306	7.6	13	81	.0	20	140	-	44	73
85	J. B. Irvin	19	do.	103	6.4	1.2	25	.0	2	30	-	38	21
100	James Howel	18	Mar. 19, 1942	51	6.0	5.8	2.1	6	26	7.5	-	1.0	39
101	Joe Justiss	79	Mar. 16, 1942	418	52	31	28	6	285	6.5	.2	12	259
102	Hays Johnson	22	Mar. 23, 1942	37	8.8	2.2	.7	12	5	10	-	4.5	31
104	Connor Bros.	16	Mar. 19, 1942	185	12	7.1	36	12	8	41	-	75	59
105	J. C. Tittle	17	Mar. 24, 1942	60	6.0	5.8	6.4	6	10	23	-	6.0	39
106	H. Thigpen	-	Mar. 19, 1942	369	7.2	3.4	145	378	3	24	.3	.0	32
107	Sunview School	25	do.	40	2.8	.7	10	18	12	3.0	-	1.5	10
109	Mount Moriah School	20	Mar. 23, 1942	46	.8	1.0	14	12	3	9.0	.1	12	6
c/ 110	T. C. Connor	380	Mar. 16, 1942	270	11	3.4	93	232	34	14	.1	.0	42
111	Connor Bros.	21	do.	127	13	8.0	20	12	2	54	-	24	65
112	Mount Zion School	26	do.	40	a/	1.0	15	31	3	5.5	.1	.0	4
113	W. C. Whitmore	27	do.	130	4.0	5.8	32	6	11	44	-	30	34

- 16 -

a/ Less than 3 parts per million.  
b/ Analyzed by the Texas State Board of Health.

c/ Analyses of water from selected wells and springs are given in milligram equivalents per liter on page 19.

Partial analyses of water from wells and springs in Morris County--Continued

Results are in parts per million

Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub> (calc.)
114	Ed Wallace	27	Mar. 23, 1942	-	a/	4.4	4.8	6	3	9.0	-	10	18
115	Connor Bros.	29	do.	84	4.4	8.3	9.2	.0	2	24	-	36	45
130	J. A. Martin	21	Mar. 20, 1942	50	4.8	2.2	11	31	3	9.0	-	5.0	21
c/132	J. B. Hall	18	Mar. 18, 1942	193	16	13	21	.0	5	38	-	100	93
133	Mrs. Gladys Wakefield	19	Mar. 13, 1942	22	.8	1.0	5.3	6	3	4.0	-	5.0	6
134	T. E. Goodwin	25	Mar. 19, 1942	75	2.8	1.0	20	12	7	10	-	28	11
135	Irvin Bros.	29	Mar. 13, 1942	473	14	31	87	.0	3	138	-	200	164
c/136	J. W. Smith	30	do.	74	2.8	2.2	20	.0	7	30	-	12	16
137	do.	27	do.	321	14	13	73	12	120	56	0.9	38	88
138	Bradfield's Chapel School	22	do.	19	a/	1.0	4.4	.0	2	3.0	.0	9.0	4
139	J. G. Wallis	18	do.	177	11	12	29	6	20	54	-	48	78
140	do.	9	do.	99	2.0	5.8	21	6	7	22	-	38	29
160	Oak Grove School	21	Mar. 24, 1942	25	2.8	2.2	2.8	12	5	2.5	.1	3.5	16
161	Rock Hill School	19	Mar. 12, 1942	24	1.2	3.4	1.6	6	2	4.0	.1	9.0	17
162	M. C. Hervey	Spring	Mar. 23, 1942	18	.8	1.0	3.7	6	2	2.0	-	5.0	6
c/163	Daingerfield State Park	493	Mar. 22, 1942	197	10	a/	70	177	26	3.5	.0	.0	26
164	Oscar Irvin	36	Mar. 23, 1942	35	3.2	3.4	3.2	6	2	10	-	10	22
166	J. M. Holt	Spring	Mar. 13, 1942	22	4.4	a/	3.9	12	3	4.5	.0	.0	11
167	M. F. Gaffney	15	do.	65	.8	3.6	17	12	10	18	-	10	17
b/170	City of Daingerfield No. 1	386	-	142	8.8	5.0	-	34	30	16	.4	.4	-
171	T. N. Jones	25	Mar. 23, 1942	32	1.6	4.6	3.0	18	5	4.0	-	5.0	23
c/180	McGrede Est.	17	Mar. 13, 1942	244	13	12	51	24	26	70	-	60	83
181	C. S. Turner	23	do.	290	14	9.7	65	6	86	52	.0	60	76
182	Connor Bros.	27	Mar. 24, 1942	175	3.2	3.4	48	18	5	34	-	72	22
183	Sycamore School	Spring	Mar. 13, 1942	82	4.0	5.8	15	6	2	28	.1	24	34
184	do.	23	do.	49	1.6	3.2	10	6	3	14	.0	14	17

a/ Less than 3 parts per million

b/ Analyzed by the Texas State Board of Health.

c/ Analyses of water from selected wells and springs are given in milligram equivalents per liter on page 19

Less than 3 parts per million  
Analyzed by the Texas State Board of Health.

c/ Analyses of water from selected wells and springs are given in milligram equivalents per liter on page 19.

Partial analyses of water from wells and springs in Morris County—Continued

Results in parts per million													
Well	Owner	Depth of well (ft.)	Date of collection	Total dissolved solids (sum)	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub> (calc.)
186	Miller Est.	51	Mar. 12, 1942	46	a/	1.2	15	6	7	16	-	3.5	5
187	W. H. Johnston	37	do.	153	0.4	1.2	51	13	13	34	-	49	6
188	Rosenwald School	22	do.	32	1.2	3.4	4.1	.0	7	7.5	0.1	9.0	17
189	Walcott Est.	-	do.	396	14	7.1	135	311	56	31	.1	.0	64
191	T. C. Connor	16	do.	118	2.8	2.4	37	18	30	34	-	3.0	17
210	Jenkins School	28	Mar. 23, 1942	45	.4	a/	16	6	8	12	.1	5.0	1
211	Arkansas-Louisiana Gas Co. No. 1	330	do.	252	11	3.4	89	244	12	16	.3	.0	42
212	Arkansas-Louisiana Gas Co. No. 2	333	do.	271	6.8	1.0	106	250	4	28	.3	2.0	21
213	J. C. Cook	31	do.	543	26	38	118	6	75	281	-	1.5	224
214	Marble Stone School	40	Mar. 12, 1942	34	2.8	1.0	9.4	18	2	10	.1		11
215	Iron Bluff School	29	do.	40	2.8	1.0	8.5	12	2	2.0	.0	18	11
216	Charlie Jenkins	40	do.	95	3.6	4.6	21	6	5	28	-	30	28
217	McCane	26	do.	342	9.2	4.9	107	128	45	53	-	60	43
218	S. Turner	49	do.	74	4.8	3.6	16	.0	8	32	-	10	27
219	do. Spring		do.	29	2.8	2.2	4.6	12	7	6.0	.1	.0	16

Less than 3 parts per million.  
Analyzed by the Texas State Board of Health.

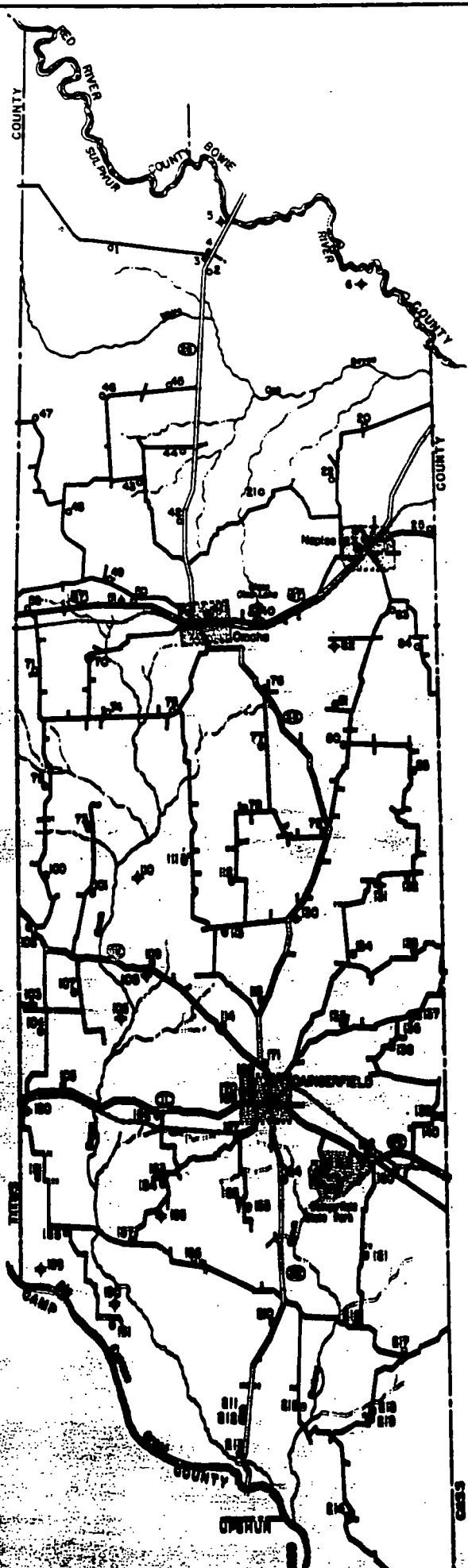
c/ Analyses of water from selected wells and springs are given in milligram equivalents per liter on page 19.

Chemical Analysis - Continued

Results are in milliequivalents per liter

Well	Owner	Depth of well (ft.)	Date of collection	Calcium (Ca)	Magnesium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Total hardness as CaCO <sub>3</sub> (calc.)
1	Dutch Love	65	Mar. 17, 1942	12.56	4.16	10.92	0.10	2.34	8.52	16.63	0.05	16.72
20	C. E. Heard	30	Mar. 18, 1942	.68	.38	3.24	2.80	.25	.96	.29	-	1.06
23	City of Naples No. 2	450	Mar. 11, 1942	.24	.08	7.96	5.20	.42	2.65	0	.01	.32
41	Thomas and Ware Water Co.	260	do.	.44	.18	.93	.10	.35	.62	.48	0	.62
48	Mrs. Annie L. Kline	25	Mar. 17, 1942	.36	.28	.86	1.30	.04	.14	.02	-	.64
74	Mrs. R. H. Talley	22	Mar. 16, 1942	.14	.18	.12	0	.04	.17	.23	-	.32
80	Kan Thigpen	25	Mar. 11, 1942	.54	2.20	1.41	0	.31	2.76	1.68	-	2.74
110	T. C. Connor	380	Mar. 16, 1942	.56	.28	4.06	3.80	.70	.39	0	.01	.84
132	J. B. Hall	18	Mar. 18, 1942	.78	1.08	.92	0	.10	1.07	1.61	-	1.86
136	J. W. Smith	30	Mar. 13, 1942	.14	.18	.87	0	.15	.85	.91	-	.32
163	Daingerfield State Park	493	Mar. 22, 1942	.52	0	3.03	2.90	.55	.10	0	0	.52
180	McGrede Est.	17	Mar. 13, 1942	.66	1.00	2.23	.40	.55	1.97	.97	-	1.66
187	W. H. Johnston	37	Mar. 12, 1942	.02	.10	2.20	.30	.27	.96	.79	-	.12
212	Arkansas-Louisiana Gas Co. No. 2	333	Mar. 23, 1942	.34	.08	4.60	4.10	.08	.79	.03	.02	.42
214	Marble Stone School	40	Mar. 12, 1942	.14	.08	.41	.30	.04	.28	0	.01	.22
216	Charlie Jenkins	40	do.	.18	.38	.91	.10	.10	.79	.48	-	.56





- EXPLANATION —
- WELL WITH HAND PUMP, BUCKET OR BAILER
  - ◇ WELL WITH WINDMILL OR SMALL POWER PUMP
  - WELL WITH PUMPING PLANT — 5 HORSE POWER OR LARGER
  - ◆ WELL DRILLED TO TEST FOR OIL OR GAS
  - ◊ UNUSED WELL
  - SPRING
  - Flowing well

BASE COMPILED FROM  
HIGHWAY PLANNING SURVEY COUNTY ROAD MAP  
AND FIELD NOTES

TEXAS BOARD OF  
WATER ENGINEERS  
IN COOPERATION WITH  
U.S. GEOLOGICAL SURVEY



**MAP OF MORRIS COUNTY, TEXAS  
SHOWING WATER WELLS AND SPRINGS**



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214/744-1641

REF. 4 42  


## ICF TECHNOLOGY INCORPORATED

TO: Dave Wineman, EPA Region VI RPO

THRU: K. H. Malone, Jr., FITOM *KHM*

THRU: Tim A. Hall, AFITOM *Set for TAH*

FROM: James A. Harris, Jr., FIT Geologist *1537-1000*

DATE: September 26, 1988

SUBJECT: PA Reassessment for Lone Star Steel Company  
Morris County, TX  
TDD F-6-8805-6  
EPA #TXD007323397  
PAN #FTX0763PAA

Lone Star Steel Company (LSS) is an ore miner, processor, and steel pipe and tube manufacturer. The facility is registered with the TWC as a generator, treater, storer and disposer of hazardous waste. It is located on an 800 acre tract of land in Morris County approximately 2.5 miles east-southeast of Lone Star, Texas. The town of Lone Star has a population of 2,023 and uses water from the Lake of the Pines for domestic, industrial and irrigational purposes. There is no known documentation of groundwater use in the town. The LSS plant uses Ellison Creek Reservoir for drinking and industrial purposes. The site is in the drainage area of Segment No. 0403 of the Cypress Creek Basin, Latitude 32° 55' 20" N, Longitude 94° 42' 57" W.

The facility has been in operation since 1942. There are at least eight SWMU's at LSS: a landfill for general use, a landfill containing cupola slag and flue dust, an old acid pit for the disposal of phenolic wastes, three pits for disposal of acid waste, an old mine trench used as a barrel dump, a landfill for ore plant waste, a waste pile for disposing of filter cakes from scrubbers, and a landfarm for oily waste. LSS generates used oils, metals and spent solvents. In addition, up to 1983, LSS stored PCB's on-site and disposed of them off-site. The hazardous wastes generated and managed at LSS are corrosive, flammable and toxic. The facility installed a groundwater monitoring program in 1981. The program consisted of 47 wells some of which were installed to a depth of 56 feet. However, available data does not list the depth of all the wells.

In 1983, the facility received two notifications from the EPA concerning NPDES permit violations.

In 1984 an EPA Potential Hazardous Waste Site - Site Inspection report was performed at the facility and identified releases of hazardous waste into the groundwater regime and surface waters adjacent to the site. The inspection also identified inactive SWMU's. These included the old mine trench used as a barrel dump, an acid pit, the inactive portion of an active landfill, a pond used to dispose of phenolic wastes which was filled with slag then capped and turned into a parking lot, the inactive portion of an active waste pile, and one of the three acid pits.

In 1985 the EPA issued a Potential Hazardous Waste Site Inspection Report which summarized recommendations made regarding the site. The EPA was in agreement with the decision for continuous groundwater monitoring and private remedial actions under the supervision of the TDWR. At this point, the facility was in compliance with the current RCRA Permit.

The TWC conducted an inspection of the facility in 1985 to survey LSS's compliance with TWC rules pertaining to solid waste management. The TWC identified unauthorized discharges of industrial solid waste into the groundwater regime. Constituents detected above permissible levels included chromium, nickel, barium, arsenic, sulphates and a low pH of 2.1.

In 1986 the TWC issued an agreed order with LSS for inadequate well locations. The order stated no violations although two additional wells were requested by the TWC.

In 1987 the TWC and LSS held a corrective action facts meeting. During the meeting, LSS revealed a closure plan that had been submitted to TWC Permits Division 2 years earlier, but had never been approved by the Enforcement Division. The plan included proposals for well locations, which would have been adequate had the plan been approved and implemented. Late in 1987, the TWC issued LSS a Notice Of Violation (NOV) letter that indicated 15 alleged violations identified in previous inspections. An industrial solid waste follow up inspection followed the NOV to determine the actions taken in response to the NOV letter.

As a result of the 1987 NOV, the TWC is currently petitioning for a second agreed order to resolve the remedial operations not yet implemented under the first agreed order and the private remedial actions agreed upon in 1985. Susan Ferguson of the Hazardous and Solid Waste Enforcement Division at the TWC said the facility is under litigation and the file on LSS is closed to the public until the second agreed order is issued. She said it would be at least 60 days until the file would be open.

The facility is under the enforcement of the TWC and an agreed order will be issued within 60 days. Based on lack of current data and inability to access TWC files due to litigation, it is recommended that after the agreed order is issued, a review of the TWC file be performed. Review of this data will assist FIT in evaluating the potential hazards associated with this site.

**RECORD OF  
COMMUNICATION**

☒

Phone Call

☐

Discussion

☐

Field  
Trip

☐

Conference

☐

Other (Specify)

TO: Susan Ferguson  
TWC Hazardous & Solid  
Waste Enforcement Div.  
(512) 463-8177

FROM:  
James A Harris, Jr.  
ICF/FIT ecologist  
(214) 7 -1641

DATE: 9/14/88  
TIME: 1430

SUBJECT: What Is The Status Of The Lone Star Steel Facility?

**SUMMARY OF COMMUNICATION:**

Ms. Ferguson said the TWC is petitioning for a second agreed order to resolve earlier violations identified in past inspections and private remedial actions taken by the facility. She also said the file on LSS would not be available to the public until the agreed order was issued. This would not be for another 60 days.

**CONCLUSIONS, ACTION TAKEN OR REQUIRED:**

**INFORMATION COPIES TO:**

EPA FORM 1300-6 (7-72)

Replaces EPA HQ Form 5300-3 Which May Be Used Until Supply is Exhausted.

RECORD OF  
COMMUNICATION

☒ Phone Call ☐ Discussion ☐ Field  
Trip  
☐ Conference ☐ Other (Specify)

TO: Marriane Buchannon  
Assistant General Manager

FROM:  
James A. Harris, Jr.

DATE: 9/15/88

NE Texas Water District

ICF/FIT Geologist  
(214) 744-1641

TIME: 1330

SUBJECT: What Is The Water Usage For Lone Star City And The  
Surrounding Region?

SUMMARY OF COMMUNICATION:

Ms. Buchannon said Lake of the Pine supplies Lone Star. Emison Creek Reservoir is owned by Lone Star Steel and provides drinking and industrial water for the plant. LSS used to sell their water as a supply to the city of Lone Star 4 or 5 years ago but the city let the contract expire and moved onto Lake of the Pines as their source. She also said the city does not use any groundwater. To her knowledge, groundwater use in the surrounding area was confined to shallow wells, but has been mostly discontinued.

She also said that the population estimate of Lone Star was 2,023 people.

CONCLUSIONS, ACTION TAKEN OR REQUIRED:

INFORMATION COPIES TO:

**Site Location Map**  
**LONE STAR STEEL, CO.**  
**LONE STAR, TX**  
**TDD NO. F-6-8805-6**  
**CERCLIS NO. TXD007323397**

QUADRANGLE LOCATION  
LONE STAR, TX

COMPLIMENTS OF

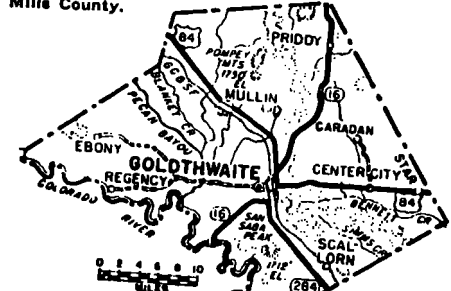
SEWALL PAINT & VARNISH CO.

DALLAS, TEXAS

PERFECTION IN PROTECTION SINCE 1877

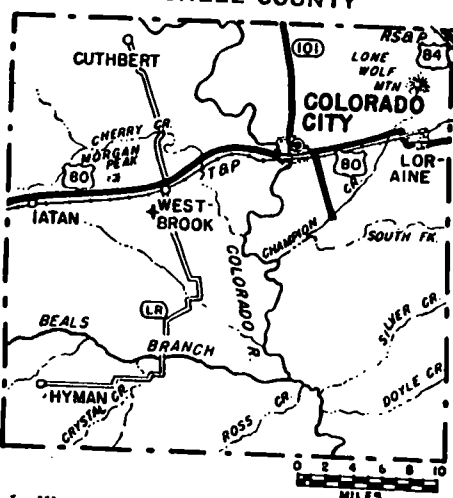
and small oaks. Created from parts of Brown, Comanche, Hamilton, Lampasas Counties 1887, organized same year. Named for John T. Mills, district judge during Republic. Alt. 1,200-1,750 ft., ann. rainfall 29.55 in., mean ann. temp. 65.5°. Growing season, 235 days.

## Mills County.



Resources: Loams, sandy loams, sandy, alluvial in bottoms. Post oak, live oak, pecan timber. Building stone, clays, evidences metallic minerals.  
Crops: Oats, grain sorghums, barley; little cotton in recent years. Large increase in peanuts, 1,681,510 lbs.  
Livestock: 124,012 sheep, 69,599 goats, 28,478 cattle, Wool shorn, 798,818 lbs. Much mohair produced. Large chicken- and turkey-raising industry; dairying increased in recent years.  
Area sq. mi.... 734 Income .....\$4,012,000  
Population... 7,951 Cropland (a)... 70,014  
Pop. sq. mi.... 10.8 Bank dep....\$3,244,000  
Tax value...\$4,696,975 Retail sales...\$2,537,000  
Total value...\$9,393,950 Auto reg..... 2,064  
Goldthwaite (1,414), county seat, market and shipping point for farm and ranch country; ships poultry, dairy products, wool, sheep, cattle. Mullin (404) market and shipping point for northwest part.

## \*MITCHELL COUNTY



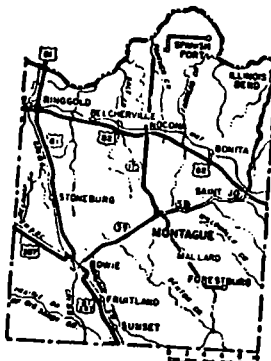
In West Texas. Undulating to hilly topography, traversed, north to south, by Colorado; largely prairie, some mesquite timbered country. Landmark is Lone Wolf Mountain NE of Colorado City, Texas County 1876, organized 1881. Named for Asa Mitchell of Austin's colony. Alt. 800 to 2,500 ft., ann. rainfall 21.33 in., mean ann. temp. 64.5°. Growing season, 218 days.  
Resources: Dark loam in valleys; sandy loam, red loam with clay subsoil on uplands. Oil production 698,728 bbls.; deposits brick and tile clay, sandstone. Mesquite timber, underground water.

Crops: 25,000 bales cotton; 949,373 bu.; grain sorghums, forage, oats, wheat, peanuts, alfalfa. Increase in farming in recent years. New crops, hairy vetch, Austrian winter peas, Abruzzi rye.  
Livestock: 28,113 cattle; 22,067 sheep; poultry raising; dairying a leading industry. A balanced crop-growing and livestock-raising county.

Area sq. mi.... 922 Income .....\$8,524,000  
Population... 12,477 Cropland (a)... 131,974  
Pop. sq. mi.... 13.5 Bank dep....\$5,084,000  
Tax value...\$8,519,238 Retail sales...\$5,506,000  
Total value...\$16,838,478 Auto reg..... 3,472

Colorado City (7,300), county seat, is farm, ranch and oil center. Gins, compress, cottonseed oil mill, petroleum refinery, cattle-shipping point. Has grown rapidly in recent years. Colorado Frontier Roundup in September. Lorraine (700) in east part of county is center for farming, and ranching area with co-operative association, cheese plant and dairy industry, cold storage lockers.

## \*MONTAGUE COUNTY



On divide between Red and Trinity basins of North Texas, in West Cross Timbers and Grand Prairie. Red River forms northern boundary. Created from Cooke County 1857, organized 1858; named for Daniel Montague, early Texas Indian fighter, pioneer surveyor, commander company in Mexican War. Alt. 800-1,250 ft., ann. rainfall 29.97 in., mean ann. temp. 64.5°. Growing season, 229 days.

Resources: Sandy loams on uplands, red clay in valleys, black sandy loam in bottoms. Post oak, blackjack, walnut, elm, pecan, hickory. Oil production 5,823,110 bbls. Natural gas produced; existing in quantity are brick and pottery clays, coal, stone.

Crops: Diversity of production with corn, grain sorghums, oats, cotton, wheat. Large increase in peanut production. Noted for fruit and truck; peaches, plums, apples, grapes, melons, sweet and Irish potatoes. Well adapted to grape culture. Hairy vetch a new money crop.

Livestock: Chicken, egg and turkey industries highly developed; large dairy industry; beef cattle raising. Large market volume of poultry, dairy products and beef.

The area of Montague County was a favorite of the aborigine Indians and many relics are found. Site near Neocoma of Old Spanish Fort built in era of Spanish-French conflict along Red River.

Area sq. mi.... 937 Income .....\$12,124,000  
Population... 20,442 Cropland (a)... 67,813  
Pop. sq. mi.... 21.8 Bank dep....\$10,191,000  
Tax value...\$17,160,080 Retail sales...\$7,072,000  
Total value...\$28,600,133 Auto reg..... 5,278

Montague (284), county seat, is farm market in center of county. Bowie (5,000) is principal market and shipping point with notable poultry industry and diversified truck and staple crop producing area. Cheese factory. Neocoma (2,608) is known for its large boot and shoe industry originating in boot shop for cowboys in pioneer days. Saint Jo (1,010) is farm market in east part of county.

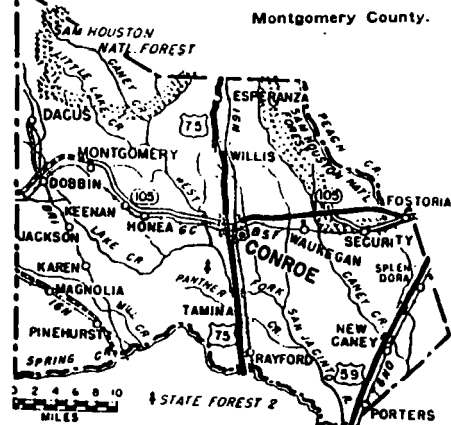
## \*MONTGOMERY COUNTY

In Southeast Texas, largely in Pine belt but with southwest fringe on Coastal Prairie. Level in southeast half; rolling to hilly in northwest. Drained by San Jacinto River. Created from Washington County 1837, organized same year. Named for Richard Montgomery, delegate from Assembly, 1775. Alt. 150-300 ft., ann. rainfall 49.17 in., mean ann. temp. 68.9°. Growing season, 260 days.

\*For explanation of all signs, symbols, abbreviations and sources, map and text, see p. 438

## COUNTIES AND CITIES OF TEXAS.

Resources: Sandy, sandy loam, loams, alluvials in bottoms. Shortleaf and loblolly pine and oak, gum and other hardwoods cut in amount of 70,000,000 bd. ft. yearly; also 51,000 cords pulpwood; 500,000 cross-ties; 550,000 acres in commercial timber.



Large oil producer, 19,798,804 bbls.; large natural gas production; carbon black; brick and tile clays available.

Crops: Timber farming increasing; peanuts, Irish and sweet potatoes, cabbage, black-eyed peas, melons, cantaloupes, fruits produced for market; little staple crop production.

Livestock: 33,275 cattle; 26,951 hogs; dairying and poultry raising for the near-by Houston market. Improvement of livestock breeds in recent years.

Wild game resources with hunting and fishing. Annual fox hunt. Introduction of game animals in excellent forest cover expected to increase game population. Part of county is in Sam Houston National Forest.

Area sq. mi.... 1,090 Income .....\$15,854,000  
Population... 23,055 Cropland (a)... 15,085  
Pop. sq. mi.... 21.2 Bank dep....\$5,718,000  
Tax value...\$61,085,204 Retail sales...\$8,348,000  
Total value...\$152,713,010 Auto reg..... 5,811

Conroe (4,624), county seat, center of lumber, oil and farming area, has carbon black plant, oil well repair, machine shops and foundries, recycling plant, furniture factory, creosoting plant, lumber mills. Good schools, hospitals. Rapid growth in recent years and much civic improvement. Willis (904) and Montgomery (750) are market and shipping centers in north and west parts, respectively.

## \*MOORE COUNTY

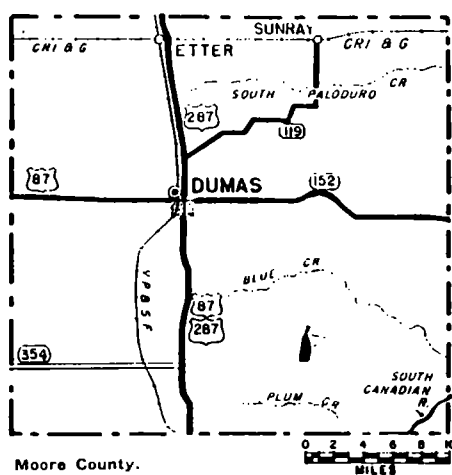
On North Panhandle Plains with south and southeast parts in breaks of Canadian River which crosses southeast corner. Remainder level, grassy prairie in native state, but now largely in cultivation. Created from Bexar Territory 1876, organized 1892. Named for Commodore Edwin Ward Moore, Commodore of Texas Navy. Alt. 3,000-3,400 ft., ann. rainfall 19.7 in., mean ann. temp. 57°. Growing season, 183 days.

Resources: Largely loam, sandy loam soils. One of principal producers in Panhandle natural gas field, world's largest, supporting much of county's population. 23 plants producing carbon black, gasoline, natural gas. Oil production 155,896 bbls.

Area sq. mi.... 912 Income .....\$9,155,000  
Population... 10,500 Cropland (a)... 187,785  
Pop. sq. mi.... 11.5 Bank dep....\$3,338,000  
Tax value...\$11,297,745 Retail sales...\$2,572,000  
Total value...\$11,297,745 Auto reg..... 3,054

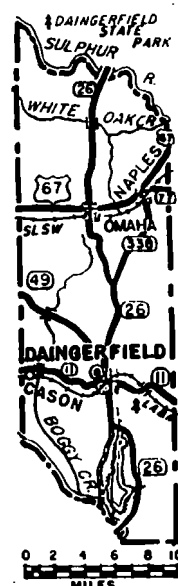
Crops: 215,000 acres in wheat; 30,000 in grain sorghums. A wheat-farming county with 2,500 acres average farm size, size of farms increasing with mechanization. Wheat production, 2,801,636 bu.; barley, 445,170 bu.; oats, forage.

Livestock: Hereford cattle on ranches in broken areas and interspersed with wheat farms; 10,000 to 20,000 head placed on wheat pasturage in



Dumas (4,000), county seat, has grown rapidly as commercial center of area with large natural gas and wheat production and industries including zinc smelter, six carbon black plants, oil refinery, three gasoline-stripping plants, nitrate plant, helium plant. Sunray (1,250) is wheat, natural gas and carbon black center in north part.

## \*MORRIS COUNTY



In Northeast Texas, on divide between Sulphur River and Big Cypress Bayou which bound it on north and south, respectively. Center rolling to level; southern part broken with low mountain ranges; north part rolling to hilly. Created from Titus County 1875, organized same year. Named for W. W. Morris, prominent East Texas lawyer. Alt. 300-450 ft., ann. rainfall 41.87 in., mean ann. temp. 60°. Growing season, 231 days.

Resources: Sandy soils on uplands, alluvials in bottoms, chocolate in more elevated areas. Timber cut commercially for pulp, lumber—pine, gum, post oak, white oak. Deposits lignite, iron ore, clay. Deposit of iron ore in southern part sufficient for large industrial production 100 years; \$25,000,000 blast furnace and coke ovens built during war by U.S. Defense Plant Corporation sold in March, 1947, to Texas company which will develop enterprise. Capacity 4,000,000 tons pig iron a year. Plant located ten miles south of Daingerfield.

Crops: A diversified crop county with production of cotton, peanuts, corn, sweet potatoes, Irish potatoes, tomatoes, melons, peaches, apples.

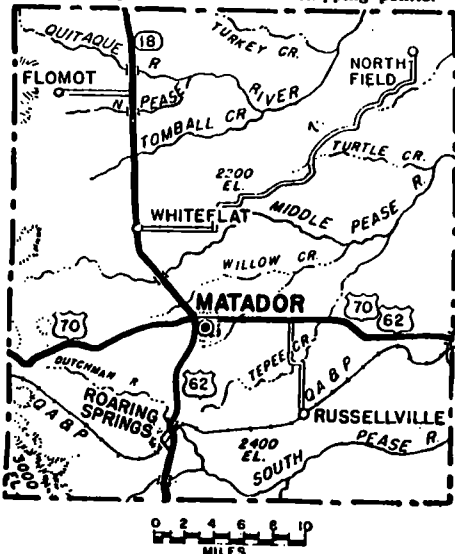
Livestock: Beef and dairy cattle; hogs. Milk shipped from northern part of county. Moderate poultry raising.

Daingerfield State Park attracts vacationists.

Area sq. mi.... 263 Income .....\$4,012,000  
Population... 9,810 Cropland (a)... 21,875  
Pop. sq. mi.... 37.3 Bank dep....\$3,948  
Tax value...\$3,417,983 Retail sales...\$2,256,000  
Total value...\$6,835,968 Auto reg..... 1,748



Dalingerfield (1,500), county seat, has prospects of growth because of location ten miles from big iron industry. (See above.) Serves as farm market and shipping point. Naples (821) and Omaha (623) five miles apart in north part are fruit and vegetable market and shipping points.



#### \*MOTLEY COUNTY

Broken, rolling terrain, with level land between breaks, on rolling plains of Northwest Texas immediately below Cap Rock. Drained by North, Middle and South Pease Rivers. Created from Texas Territory 1876, organized 1891. Named for Dr. Junius William Motley, killed in Battle of San Jacinto (difference in spelling because of error in statute creating and naming county). Alt. 2,200-3,000 ft., ann. rainfall 21.6 in., mean ann. temp. 61.4°. Growing season, 218 days.

Resources: Soils stiff black clay to sandy, underlaid with clay, red clay subsoil. Part prairie; red mesquite woodland with some small oaks and cedar. Minerals—bleaching clays, lignite, sand, gravel, caliche; little production.

Crops: 3,914 bales cotton, grain sorghums, wheat, peanuts, berries, grapes, peaches and other fruit and truck for local use.

Livestock: 59,688 cattle all types, only 1,722 milked. Primarily a ranching area, but hogs, sheep, horses, dairying and poultry bring moderate income.

Area sq. mi. . . . 1,011 Income . . . \$3,437,000  
Population . . . 4,994 Cropland (a) . . . 106,287  
Pop. sq. mi. . . . 4.9 Bank dep. . . \$2,098,000  
Tax value . . . \$5,161,079 Retail sales . . \$2,116,000  
Total value . . \$10,322,158 Auto reg. . . . 1,141

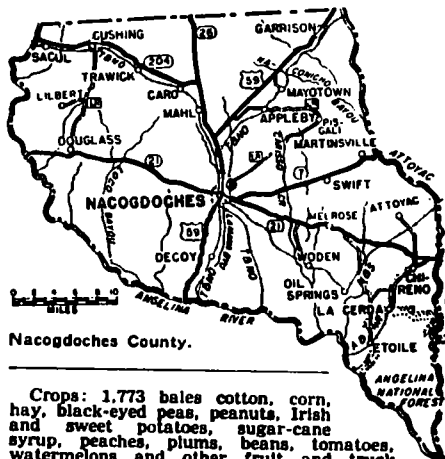
Matador (1,376), county seat, trade and shipping point. Headquarters famous Matador Ranch; dependent on cotton, wheat, cattle economy.

Roaring Springs (514) is retail and recreational center named for spring of the water.

#### \*NACOGDOCHES COUNTY

Rolling to broken, wooded area with level plateaus and valleys in Pine Belt of East Texas. Drained by Angelina and Neches Rivers and tributaries. One of original counties, created 1836, organized 1837. Named for Nacogdoches Indians. Alt. 500-600 ft., ann. rainfall 47.02 in., mean ann. temp. 63.4°. Growing season, 236 days.

Resources: Soils gray sandy, red sandy, red clay on hills; dark sandy alluvial, red loam in lowlands. Timber chief natural resource, lumber—main industry—center of shortleaf pine belt, gum, oak, magnolia. Value of wood production in 1945 was \$3,000,000. Small oil production; gas, brick and tile clay. Lignite deposits.



Nacogdoches County.

Crops: 1,773 bales cotton, corn, hay, black-eyed peas, peanuts, Irish and sweet potatoes, sugar-cane syrup, peaches, plums, beans, tomatoes, watermelons and other fruit and truck marketed.

Livestock: Dairying main item, with annual income \$2,000,000. Income from beef cattle, hogs, poultry (especially broilers). Dairy income five times that of 1940.

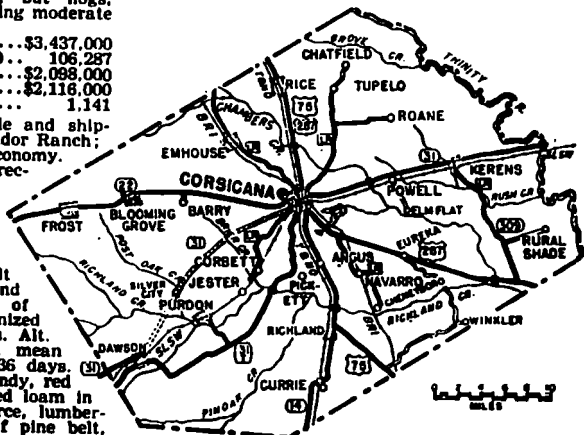
Many points of historic interest. Hunting, fishing facilities attract visitors.

Area sq. mi. . . . 963 Income . . . \$19,391,000  
Population . . . 35,392 Cropland (a) . . . 56,710  
Pop. sq. mi. . . . 36.8 Bank dep. . . \$18,697,000  
Tax value . . . \$12,339,930 Retail sales . . \$12,239,000  
Total value . . \$24,679,860 Auto reg. . . . 6,055

Nacogdoches (9,300), county seat, one of Texas' oldest municipalities established originally around Guadalupe Mission by Spaniards in 1716, permanently established 1779. Historical landmarks include Old Stone Fort, Adolphus Sterne Home, Peter Ellis Bean Home, Old North Church (first Baptist Church in state, 1838). Industries include sawmills, dress factories, brass factory, creosote plant, fuller's earth, feed and cottonseed oil mills, brick plant, bleaching clay and others. Home of Stephen F. Austin State Teachers College. Annual events include watermelon festival in July. Cushing (473), Garrison (770), Chireno (500), Appleby (250) are farm trading points.

#### \*NAVARRO COUNTY

In North Central Texas with rolling terrain of Blackland Prairies but with small eastern part in



\*For explanation of all signs, symbols, abbreviations and sources, map and text, see p. 416.

Post Oak Belt. Drained by Trinity which forms northeast boundary. Created from Robertson County 1846, organized same year. Named for Jose Antonio Navarro, Texas patriot, signer of Texas Declaration of Independence. Alt. 300-500 ft., ann. rainfall 36.91 in., mean ann. temp. 66.2°. Growing season, 250 days.

Resources: Black waxy, loam soils. Post Oak, pecan, cedar; small production. Oil production 514,067 bbls. gas, brick, clay. Navarro has longest record of continuous oil production of any county in Texas. Lignite deposits.

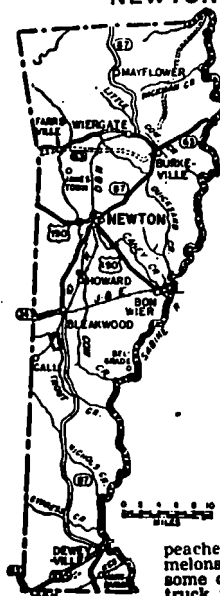
Crops: 28,263 bales cotton, corn, grain sorghums, oats, barley, wheat, alfalfa, hays, sweet potatoes, onions, pecans, berries, peaches, watermelons and other fruit and truck marketed. Legume crops spreading. County has diversified crop income.

Livestock: 49,567 cattle all types, with 6,558 milked for production 2,369,066 gals. Beef cattle, hogs, horses and mules, dairy and poultry products marketed. Egg production 1,155,620 doz., turkeys raised 19,150. Some honey marketed. In last decade Navarro has balanced crops with stock raising, emphasizing fine Herefords which are prize-winners.

Area sq. mi. . . . 1,084 Income . . . \$37,351,000  
Population . . . 51,308 Cropland (a) . . . 230,238  
Pop. sq. mi. . . . 47.3 Bank dep. . . \$25,194,000  
Tax value . . . \$21,102,228 Retail sales . . \$17,289,000  
Total value . . \$52,755,557 Auto reg. . . . 9,899

Corseana (18,500), county seat, main retail, wholesale, shipping center with balanced income from oil, crops, livestock, distribution. Industries include food products, steel fabrication, refrigeration and air-conditioning equipment, textile mill, hatcheries, creameries, cottonseed oil mills, oil well supply farm machinery, garment factories, compress, oil refinery, poultry dressing and others. Good hospitals. Navarro Junior College, Texas State Home and School for Orphans and I.O.O.F. Children's Home. Local market centers include Kerens (1,287), Dawson (1,155), Blooming Grove (821), Frost (671).

#### \*NEWTON COUNTY



On Louisiana border in Pine Belt of Southeast Texas, level in south, hilly and broken in north; bordered on east by Sabine River. Created from Jasper County 1846, organized same year. Named for Spt. John Newton, hero Spt. American Revolution. Alt. 40-200 ft., ann. rainfall 56.13 in., mean ann. temp. 67.5°. Growing season, 249 days.

Resources: Soils sandy, clay, some deep sands, alluvial in bottoms. Lumbering main industry (sawlogs, ties, pulpwood) with shortleaf and longleaf pine, white oak, gum, magnolia, cypress. Brick clay, lignite, gravel building stone. Small oil production.

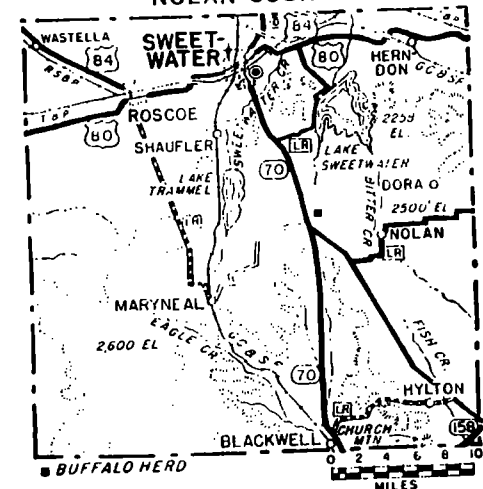
Crops: Corn, rice, hay and other feed-stuffs, black-eyed peas, peanuts, sweet and Irish potatoes, sugarcane syrup, berries, peaches, pears, pecans, watermelons, cabbage, tomatoes, other fruit and truck marketed; 615 tung trees.

Livestock: 14,880 hogs, beef and dairy cattle, sheep and goats, poultry, horses and mules raised.

Area sq. mi. . . . 941 Income . . . \$5,051,000  
Population . . . 13,700 Cropland (a) . . . 14,354  
Pop. sq. mi. . . . 14.6 Bank dep. . . \$1,893,000  
Tax value . . . \$4,497,860 Retail sales . . \$2,244,000  
Total value . . \$12,651,020 Auto reg. . . . 1,742

Newton (888), county seat, main trade point, lumber center. Wiergate (900) is rail terminus and lumber center. Deweyville (800) is lumber center. Burkeville (800) is trading point.

#### \*NOLAN COUNTY



In West Texas; rolling uplands, with broad level valleys and occasional plateaus with interspersed prairies and mesquite woodlands; traversed from east to west by Callahan Divide, the watershed boundary between Brazos, Colorado Basins. Created from Texas Territory 1876, organized 1881. Named for Philip Nolan, explorer into Spanish Province of Texas, who was slain in 1801. Alt. 2,100-2,700 ft., ann. rainfall 24.35 in., mean ann. temp. 64.2°. Growing season, 220 days.

Resources: Soil mainly reddish dark loam, some black waxy lime sand, some sandy. Hackberry cottonwood, scrub post oak, mesquite. Commercial gypsum products; strontium celestite commercially mined; also deposits silica sand, manganese. Small oil production, and sand adaptable to glass uses.

Crops: 10,168 bales cotton, corn, grain sorghums, oats, barley, wheat, hays and other feed-stuffs. Peaches, grapes, other fruit and truck for local use.

Livestock: Beef cattle, dairying, poultry raising, hogs, sheep and goats, wool and mohair, horses bring income. Milk production 1,642,574 gals., wool shorn 517,869 lbs.

Lakes Sweetwater and Trammel afford recreational facilities.

Area sq. mi. . . . 921 Income . . . \$16,693,000  
Population . . . 20,000 Cropland (a) . . . 112,917  
Pop. sq. mi. . . . 21.7 Bank dep. . . \$9,528,000  
Tax value . . . \$11,485,025 Retail sales . . \$10,789,000  
Total value . . \$29,712,562 Auto reg. . . . 5,868

Sweetwater (14,500), county seat, main trade, shipping, distribution center. Industries include large gypsum products plant, cottonseed oil mill, packing concerns, oil refinery, railroad shops, agricultural machinery, cotton gins, sand and gravel, compress, creameries, hatcheries, drilling muds and others. Annual events include Four-County Stock Show and July 4 Boat Races. Other trading points are Roscoe (4,000) market for ranching and farming country in south part of county.

#### \*NUECES COUNTY

On the Lower Coastal Plain of Southeast Texas facing the water of Corpus Christi Bay with portion of county lying on Mustang and Padre Islands. Flat lands with gentle slope to coast; part prairie part woodland and brush in native state, but now largely in cultivation. Created from San Patricio County 1846, organized same year. Named for Nueces River. Alt. sea level to 180 ft., ann. rainfall 26.43 in., mean ann. temp. 70.7°. Growing season, 335 days.

Resources: Soils dark sandy loam, light sandy, some black waxy, clay loam. Mesquite, post oak, live oak, huisache. Oil production 15,201,888 bbls.,

\*For explanation of all signs, symbols, abbreviations and sources, map and text, see p. 416.

RECORD OF COMMUNICATION	(Record of Item Checked Below) <input checked="" type="checkbox"/> Phone Call <input type="checkbox"/> Discussion <input type="checkbox"/> Field Trip <input type="checkbox"/> Conference <input type="checkbox"/> Other(Specify)	
TO: Michael Watson, FIT Chemist <i>Michael Watson</i>	From:  Michael Moore, TWC  (512) 463-7761	Date: 1-3-89  Time: 2:40 to 3:10
SUBJECT: T & N Lone Star Warehouse		
SUMMARY OF COMMUNICATION		
Michael Moore has informed me that:		
1) financial status of T & N is unknown		
2) current parent company is uncertain		
(Texas & Northern Industries or Lone Star Technologies, Inc.)		
3) permit for landfill was approved. The pit contents were to be		
transferred to the landfill but a change in regulations prevents		
the waste from being moved. (Possible lawsuit in progress)		
4) All monitoring wells are upgradient of the spring and the spring was		
already there before the pit was used for disposal. They were the end		
result of a strip mining operation.		
5) He believes that the high content is due to the overburden. Not the		
pipe dope compound.		
6) Unknown quantity of waste in pit.		
7) Pipe dope compound has a high percent of Zn and Pb.		
8) December 5, 1986, closure plan lists J. D. Shiver and J. T. Pennigton		
as the current contacts to T & N.		
9) pH of water usually about 5.6		
10) That the solvent was manually dumped into the pit.		
INFORMATION COPIES		
TO:		

REF. 6

File [REDACTED]

TWC Reg. No. 33373TEXAS WATER COMMISSION  
Solid Waste Compliance Monitoring Inspection Report

## INSPECTION COVER SHEET

C.O. Use Only

MAY 04 1987

TWC District 5EPA ID No. [REDACTED]COMMERCIAL WASTE FACILITY       NAME OF COMPANY [REDACTED]MAILING ADDRESS P.O. Box 300, Lumberton, Texas 75668 Tel. 214-656-3461SITE LOCATION Hwy. 250 3 miles east of Lumberton, Texas Tel.       COUNTY Maricopa TYPE OF INDUSTRY Pipe storageGENERATOR CLASSIFICATION: Industrial ☒ Municipal        GOVERNMENT FACILITY       

Part A Application submitted to the State? Yes        No ☒ To EPA? Yes        No ☒  
 Affidavit of Exclusion submitted to the State? Yes        No ☒  
 Was a written exclusion granted by TWC? Yes        No ☒ If yes, Date:         
 Will this facility require a RCRA permit? Yes        No ☒

CURRENT WASTE MANAGEMENT (Haz.-"H", Class I NonHaz.-"NH", Class II-"II", Class III-"III")

Generator H, NH, II Treatment        Storage H, NH Disposal H, NH, II Transporter       HW Exemptions: 90-Day Storage ☒ Other       SQG       : Total HW Generation Per Month: <100 kg.        100-1000 kg.       H W Facilities (circle facility codes): (C) T SI WP LT (LF) I TT TR WDW ON H Facilities (circle facility codes): (C) T SI WP LT (LF) I TT TR WDW O

Anomalies in the above information will be addressed by: (a) Enforcement in progress       ,  
 (b) Central Office       , (c) District Office       , (d) Owner/Operator ☒.

Type of Inspection (circle): (CBI) SQG CL CD SA OT FO SWInspector's Name and Title Kevin Phillips / EGS IIInspection Participants Tom Bosley, Steve Boyd - TWC, Black Snyder - Lumberton SteelDate(s) of Inspection 3-30-87Approved: John H. Matheson  
District ManagerSigned: Kevin Phillips 4-27-87  
Inspector Date

APR 29 1987

TEXAS WATER COMMISSION  
Solid Waste Inspection Report  
CONTENTS SHEET

TWC Reg. No. 33313

COMPANY NAME Tru Lone Star Warehouse Co

- ☒ 1. Code Sheet (0814)
- ☒ 2. Inspection Cover Sheet      ☐ 2b. Special Insp. Cover Sheet (HB.2358)
- ☒ 3. Generators Checklist      ☐ 3b. Small Quantity Generator Checklist
- ☒ 4. General Facilities Checklist
- ☐ 5. Transporters Checklist
- 6. Facility Component Checklists (codes)
  - ☒ a. Containers (C)
  - ☐ b. Tanks (T)
  - ☐ c. Surface Impoundments (SI)
  - ☐ d. Waste Piles (WP)
  - ☐ e. Land Treatment (LT)
  - ☒ f. Landfills (LF)
  - ☐ g. Incinerators (I)
  - ☐ h. Thermal Treatment (TT)
  - ☐ i. Chemical, Physical, or Biological Treatment (TR)
  - ☐ j. Other (O)

- ☒ 7. Closure/Post-Closure Checklist      ☒ 7b. Closure-In-Progress Checklist
- ☒ 8. Groundwater Monitoring Checklist Group
- ☐ 9. Notice of Violation (NOV) Letter
- ☒ 10. Interoffice Memorandum (IOM)
- ☒ 11. Registration
- ☒ 12. Maps, Plans, Sketches
- ☐ 13. Photographs
- ☐ 14. Sample COC Tags
- ☒ 15. Other (describe) Waste Audit, Financial Test Letter, Closure Plan Document, Modified Closure Plan, Well boring logs

NOTE: If a required Checklist is omitted, explain: \_\_\_\_\_

## TWC Solid Waste Inspection Report

TWC Reg. No. 33373**GENERATORS CHECKLIST****Section A - NOTIFICATION and WASTE DETERMINATION**

\*\*\*

1. Has generator completed an appropriate **hazardous waste determination** for each solid waste produced? YES ☐ NO ☒
2. Check the method used for determination:
- ☐ a. Listed as a hazardous waste in 40CFR Part 261, Subpart D.
  - ☐ b. Process or materials knowledge.
  - ☐ c. Tested for characteristics as identified in Part 261, Subpart C  
(If equivalent test method is used, attach a copy)

**NOTE:** If a hazardous determination has not been made or appears to be incorrect, the inspector should obtain a sample of the waste for analysis and explain in comments.

3. Has the facility received an EPA ID number? N/A ☐ YES ☒ NO ☐
4. Is notification of all waste streams generated correct? YES ☐ NO ☒
5. Is notification of all waste management (TSD) methods correct? YES ☒ NO ☐
6. Does facility generate, treat, store, or dispose of **PCB wastes**? YES ☐ NO ☒  
If yes, describe storage and disposition:

7. Does this facility generate **used oils**? YES ☒ NO ☐  
If yes, describe storage and disposition:

*Heavy equipment oils, locomotive oils, and veh. ch. oils. These oils are stored at facility, 431 above ground tank.*

8. Does this facility generate **spent solvents**? YES ☒ NO ☐  
If yes, describe storage and disposition:

*Two uses Safety Klean solvent and their services. Waste solvent is not stored before pickup by Safety Klean. Two also has a solvent/handouts waste which is stored at facility. The has been disposed of this waste to date.*

9. Does this facility utilize **sumps** in the management of hazardous waste? If yes, describe use: YES ☐ NO ☒

Section B - SPECIAL CONDITIONS

\*\*\*

1. If generator has received from or transported to a **foreign entity** any hazardous waste, has the appropriate notice been filed with the EPA Regional Administrator? N/A ☒ YES ☐ NO ☐
2. Was the waste manifested and signed by the foreign consignee? N/A ☒ YES ☐ NO ☐
3. Has confirmation of waste transport out of the country been received by the generator? N/A ☒ YES ☐ NO ☐

Section C - RECORDKEEPING and REPORTING (335.9\*, .10, .13, .70-71)

1. Does the generator maintain the following records and reports (if applicable) for the necessary three years?
- |  |  |
|--|--|
| a. Shipping Manifests  | N/A <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| b. Monthly off-site shipment summaries   | N/A <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| c. Monthly on-site land disposal summaries   | N/A <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> |
| d. Monthly waste receipt summaries   | N/A <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> |
| *e. Company records of industrial solid waste T/S/D activities                                     | N/A <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| *f. Company records of municipal haz. waste T/S/D activities for generators of >100 kg/month, etc. | N/A <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> |
| g. Tests and analyses of HW determinations   | N/A <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> |
| h. Annual reports  | N/A <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
2. Has generator submitted **exception reports** to TWC for any original (white) copies of manifests not received back? N/A ☒ YES ☐ NO ☐
3. Have any **spills**, unauthorized discharges, or threats of such discharges occurred?
- If Yes:    a. Have they been reported? YES ☐ NO ☒
- b. Have they been remedied? (Explain) N/A ☒ YES ☐ NO ☐

+++ IF GENERATOR DISPOSES OF WASTES ON-SITE ONLY, WRITE N/A IN SECTION D+++

Section D - PRETRANSPORT and MANIFEST REQUIREMENTS

1. Identify primary off-site **disposal facilities**:

Safety-Kleen Corp. Facility, Austin, Texas

2. Are off-site disposal facilities RCRA-permitted or operating under RCRA interim-status standards? N/A ☐ YES ☒ NO ☐
3. Are TWC manifests properly completed? N/A ☐ YES ☒ NO ☐

++++ STOP & SIGN HERE IF FACILITY QUALIFIES AS A SMALL QUANTITY GENERATOR +++++

Signed: \_\_\_\_\_

Section D - (Continued)

\*\*\*

4. Do containers used to hold waste meet DOT **packaging** requirements (49CFR Parts 173,178,179) before being offered for transport? (if observed) N/A ☒ YES \_\_\_ NO \_\_\_
5. Does generator **label** and **mark** each package in accordance with 49CFR Part 172? (if observed) N/A ☒ YES \_\_\_ NO \_\_\_
6. Is each container of 110 gallons or less **marked** with the required hazardous waste warning label? N/A ☒ YES \_\_\_ NO \_\_\_
7. Does generator **placard** off-site waste shipments in accordance with DOT regulations (49CFR Part 172, Subpart F)? (if observed) N/A ☒ YES \_\_\_ NO \_\_\_

Section E - ACCUMULATION TIME EXEMPTION

NOTE: A facility may accumulate and store hazardous wastes in containers or tanks for up to 90 days without a permit.

1. Is the beginning **date** of Accumulation Time clearly indicated on each container? N/A \_\_\_ YES \_\_\_ NO ☒
2. Is each container or tank clearly labeled or marked "Hazardous Waste"? N/A \_\_\_ YES \_\_\_ NO ☒

NOTE: Attach a Container Checklist for each container storage area.

NOTE: Attach a Tanks Checklist for each tank (or each group of similar tanks).

NOTE: If this is a TSD Facility, proceed to General Facilities Checklist.

TWC Reg. No. 33323

Checklist Exp. Cover Sheet

COMMENTS SHEET

Section <sup>Mailings</sup> Address 1 The company's registration should indicate P.O. BOX 300, not 187  
(TAC 335, U)

Section <sup>Contact</sup> Person 1 TON should indicate who the new contact person should be (TAC 335, U)  
George Hart listed on the 6-13-86 RCR is no longer with the company. TON said they would have to choose another contact person. TON was not sure on this inspection who this would be.

Section <sup>RCRA</sup> Permit 1 TON has submitted a closure plan for facility of (landfill) which was approved by the TWC on 12-5-86. A clean closure is planned for the landfill. Closure is dependent upon Lane Steel Co and Petac Inc. obtaining a permit (HW-50087) to construct the new hazardous waste landfill.

Who is Petac Inc?

Section 1



TWC Reg. No. 33373

Checklist Inspection

COMMENTS SHEET

Section A(1) 1 TSN should make a hazardous waste determination on heavy equipment oils, lubricative oils, and vehicle oils. E.P. toxicity for metals and ignitability are needed. (TAC 335.62)

Section A(4) 1 If the oils test hazardous as class II then TSN will have to add these new wastes to the NOL. If class I is determined then the waste oils are already listed on the NOL.

Section C(1)(a) 1 TSN should begin keeping records of all hazardous waste kept in storage at the container storage area (Facility 04). Waste stored here is a solvent/thinner like mixture. Thirteen (13) drums were in storage on this inspection. (TAC 335.8)

Section E(1) 1 The beginning date of accumulation was not on the 55 gallon metal drums at area 04. (TAC 335.69(a)(2))

(2) Each container was not labeled "Hazardous Waste". (TAC 335.69(a)(3))

## TWC Solid Waste Inspection Report

TWC Reg. No. 33523**GENERAL FACILITIES CHECKLIST**Section A - GENERAL SITE INFORMATION

1. Are any solid waste facilities located in the 100-year floodplain? NO ☒ YES ☐ \*\*\*
2. Describe land use within one mile Rural, Industrial, Iron Ore Mining (in part)
3. Are there any closed or abandoned solid waste facilities? NO ☒ YES ☐
4. Has proof of deed recordation of all solid waste Land Disposal facilities been provided to TWC? N/A ☐ YES ☒ NO ☐
5. Is there any evidence of fires and explosions ~~or leaks and discharges to the environment~~ from solid waste facilities or any other type of facility? NO ☐ YES ☒

NOTE: Attach Plant Map showing site orientation, waste management facilities, and major topographic features (See Attachment A, B, & C)

+++ STOP & SIGN HERE IF THE REST OF THIS CHECKLIST IS NOT APPLICABLE +++

Signed: \_\_\_\_\_

Section B - PERSONNEL TRAINING Program started April 24, 1986

1. Does the owner/operator maintain a personnel training program? N/A ☐ YES ☒ NO ☐
2. Is the program directed by a person trained in hazardous waste management procedures? N/A ☐ YES ☒ NO ☐
3. Is the program designed to prepare employees to respond effectively to hazardous waste emergencies? N/A ☐ YES ☒ NO ☐
4. Is a training review given annually? Started April 24, 1986 N/A ☒ YES ☐ NO ☐
5. Does the owner/operator keep the following records at the facility:
- a. Job title and written job description of each position? N/A ☐ YES ☐ NO ☒
- b. Description of the type and amount of training? N/A ☐ YES ☐ NO ☒

\*\*\* An entry in this column indicates explanation/response is needed.

Section C - PREPAREDNESS and PREVENTION

1. Is the facility equipped with: \*\*\*
- |   |   |  |
|---|---|--|
| a. Internal communication or alarm system within easy access  | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |
| b. Communication system to call off-site emergency assistance | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |
| c. Fire, spill control, and decontamination equipment         | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/> |
| d. Adequate fire-water supply (volume and pressure)           | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |
2. Is the above-noted emergency equipment regularly tested? (See Comment) YES ☐ NO ☒
3. Is aisle space sufficient to allow unobstructed movement of personnel and equipment? YES ☒ NO ☐
4. Has the owner/operator attempted to familiarize local response authorities with: facility layout, entrances and evacuation routes, hazardous waste properties and hazards, and the work location of facility personnel? N/A ☐ YES ☒ NO ☐
5. Has a primary authority been designated in case more than one law enforcement or fire department responds? N/A ☐ YES ☒ NO ☐
6. Has the owner/operator attempted to reach agreements with: State emergency response teams, emergency response contractors, and equipment suppliers? N/A ☐ YES ☒ NO ☐
7. Has the owner/operator attempted to make arrangements with local hospitals to familiarize them with the hazardous wastes handled and the injuries that could result from: fires, explosions, or releases from the facility? N/A ☐ YES ☒ NO ☐
8. If State or local authorities declined to enter into the above-noted agreements, was this documented? N/A ☒ YES ☐ NO ☐

Section D - CONTINGENCY PLAN and EMERGENCY PROCEDURES

1. Is a contingency plan to minimize dangers of accidental releases from hazardous waste facilities maintained at the facility? YES ☐ NO ☒
2. Does the contingency plan contain:
- |   |   |   |
|---|---|---|
| a. Actions to be taken in response to emergencies                   | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/>                              |
| b. Description of agreements with police, fire & hospital officials | N/A <input type="checkbox"/>            | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| c. Names, addresses & phone numbers of emergency coordinators       | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/>                              |
| d. List, description & location of emergency equipment              | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/>                              |
| e. Evacuation plans, if necessary                                   | N/A <input checked="" type="checkbox"/> | YES <input type="checkbox"/> NO <input type="checkbox"/>            |
3. Have copies of the contingency plan been provided to: local police and fire departments, hospitals, and State and local emergency response teams? N/A ☐ YES ☐ NO ☒

+++ STOP & SIGN HERE IF FACILITY QUALIFIES FOR THE 90-DAY STORAGE EXEMPTION +++  
Signed: \_\_\_\_\_

## Section E - WASTE ANALYSIS

- \*\*\*
1. Is a **written waste analysis plan** maintained at the facility? YES ☐ NO ☒
2. Does the plan include the following:
- a. Detailed physical and chemical analysis of all haz. wastes YES ☐ NO ☐
  - b. Rationale for selection of analytical parameters YES ☐ NO ☐
  - c. Analytical test methods used YES ☐ NO ☐
  - d. Sampling methods used to obtain representative waste samples YES ☐ NO ☐
  - e. Frequency the initial analysis will be reviewed or repeated (including re-testing when waste streams change) YES ☐ NO ☐
  - f. Waste analyses that generators have agreed to provide (applies to facilities receiving wastes from off-site) N/A ☐ YES ☐ NO ☒
3. For facilities receiving wastes from off-site:
- Is each incoming waste shipment **inspected and**, if necessary, **analyzed** to check it against the manifest? N/A ☒ YES ☐ NO ☐

## Section F - SECURITY

1. Does the facility provide adequate security to minimize the possibility of unauthorized entry by persons or livestock? YES ☐ NO ☒
2. Is security of the active portion of the facility provided through:
- (circle)
- a. 24 Hr surveillance *> Guards at entrance to TON facility*
- OR
- b. Perimeter barriers and means to control entry *Barbed wire around TON facility and chain link fence with barbwire at facility C1* YES ☒ NO ☐
3. Is a sign with the legend "Danger-Unauthorized Personnel Keep Out" (or an equivalent legend) posted at all entrances and approaches to active portions of the facility? YES ☐ NO ☒
4. Is the sign legible from at least 25 feet? YES ☐ NO ☒

**NOTE:** The sign must also be written in Spanish in counties bordering the Republic of Mexico.

Section G - GENERAL INSPECTION REQUIREMENTS

\*\*\*

1. Is a **written inspection schedule** maintained at the facility? N/A ☐ YES ☒ NO ☐
2. Does the schedule provide for inspection of the following:
- |                                       |   |
|---------------------------------------|---|
| a. Monitoring equipment               | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| b. Safety and emergency equipment     | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| c. Security devices                   | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| d. Operating and structural equipment | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
3. Does the schedule identify the following **types of problems** to be looked for during the inspection:
- |                                     |   |
|-------------------------------------|---|
| a. Malfunction and deterioration    | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| b. Operator error                   | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| c. Discharge or threat of discharge | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
4. Does owner/operator maintain **inspection logs** which include:
- |   |   |
|---|---|
| a. Date and time of inspection                    | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| b. Name of inspector                              | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| c. Notation of observation                        | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| d. Date and nature of repairs and remedial action | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
5. Have malfunctions or other deficiencies *(Program just started no deficiencies)* noted in the inspection log been corrected? *or malfunction noted* N/A ☒ YES ☐ NO ☐
6. Are inspection log records maintained for three years? YES ☒ NO ☐

Section H - SPECIAL REQUIREMENTS

1. Does the owner/operator take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes? N/A ☐ YES ☒ NO ☐
2. Are smoking and open flame confined to designated areas? N/A ☐ YES ☒ NO ☐
3. Are "No Smoking" signs posted in areas with ignitable or reactive wastes? N/A ☐ YES ☐ NO ☒

Section I - MANIFEST SYSTEM, RECORDKEEPING and REPORTING

\*\*\*

1. Does owner/operator comply with manifesting requirements? N/A    YES    ✓ NO
2. For wastes received from off-site:
- a. Is waste that is transported by rail or water accompanied by properly executed shipping papers? N/A    ✓ YES    NO
- b. Have all shipments been consistent with the manifests? N/A    ✓ YES    NO
- c. Are unmanifested wastes reported to TWC? N/A    ✓ YES    NO
- d. Have manifest discrepancies been reconciled with the generator and transporter? N/A    ✓ YES    NO

Section J OPERATING RECORD

1. Is a **written operating record** maintained at the facility? N/A    YES    ✓ NO
2. Does the operating record reflects the following:
- a. Description and quantity of each hazardous waste received and the method and date of treatment, storage or disposal at the facility. N/A    ✓ YES    NO
- b. Location & quantity of each haz. waste in the facility. N/A    YES    NO    ✓
- c. Records and results of waste analyses and trial tests. N/A    ✓ YES    NO
- d. Summary reports of all incidents requiring implementation of the Emergency Contingency Plan. N/A    ✓ YES    NO
- e. **Closure Cost estimates** for all facilities. N/A    YES    ✓ NO
- f. **Post-Closure cost estimates** for all disposal facilities N/A    ✓ YES    NO

Section K - FINANCIAL ASSURANCE

1. Did preinspection call to Central Office confirm that the facility has submitted current financial assurance documentation? N/A    YES    ✓ NO
2. If Yes, indicate the documents submitted and their respective values:
- |                                   |  |                                     |
|-----------------------------------|--|-------------------------------------|
| <u>  </u> Sudden Liability-       | Amount: \$ <u>                  </u> per occurrence, | \$ <u>                  </u> annual |
| <u>  </u> Non-sudden Liability-   | Amount: \$ <u>                  </u> per occurrence, | \$ <u>                  </u> annual |
| <u>  </u> ✓ Closure Assurance-    | Amount: \$ <u>123 000</u>                            |                                     |
| <u>  </u> Post-Closure Assurance- | Amount: \$ <u>                  </u>                 |                                     |
| <u>  </u> Corrective Action-      | Amount: \$ <u>                  </u>                 |                                     |

3. Did Financial Assurance Officer report that documentation is adequate? N/A    YES    NO    ✓
- Telephone call to Susan Ralls 4-23 87 (reclude) revealed inadequate financial assurance*

TWC Reg. No. 33373

Checklist Fac. 1410

**COMMENTS SHEET**

Section A(5)1 During this inspection it was noted that the fence was removed from the southeast end of the hazardous landfill (Facility 01). It was also noted that the southeast end of the landfill area had been excavated by trenching out the dike, to allow finding water which surfaces in the landfill to discharge. TON is currently monitoring dissolved lead concentrations each month (one/month) but not free water discharge from the landfill area, as agreed in the closure plan.

Section B(5)1 TON has provided personnel training and has an outline of courses to train employees but has not documented the type or amount of training. (TAC 335.112/40 CFR 265.16(a)(3))  
Job titles and a written job description are needed for each position. (TAC 335.112/40 CFR 265.16(d)(2))

Section C(1)(c)1 Facility 04 (Container Storage Area) did not have fire extinguishers in the area. Waste stored here are ignitable. (TAC 335.112/40 CFR 265.32(c))

Section C(2)1 See comment C(1)(c), above. No fire extinguishers in area yet.

TWC Reg. No. 33373

Checklist Facility

COMMENTS SHEET

Section D 1 TON does not have a contingency plan. TON tried to use Lone Star Steel's contingency plan as its own. TON should have a contingency plan for this facility (TON) (TAC 335.112/40 CFR 265.50)

Section E 1 A written waste analysis plan is needed for this facility (TAC 335.112/40 CFR 265.13).

Section F(1) See comment A(5). TON also has contractors working at the warehouse (TON) - With the southeast fence being down and roads leading to the landfill (C1), it does not provide minimal possibility of unauthorized entry. (TAC 335.112/40 CFR 265.14(a)).

Section F(3)(4) The hazardous landfill (Facility C1) did not have signs posted with the legend "Danger - Unauthorized Personnel Keep Out". (TAC 335.112/40 CFR 265.14(c)). The facility had sign stating "Authorized Personnel Only" but did not alert personnel entering the area that danger was possible.  
Signs were legible but not oriented correctly.



TWC Reg. No. 33373

Checklist Fac. 1, 4, 11

COMMENTS SHEET

Section G(2)(b) TON will have to modify its general inspection schedule to include inspection of fire extinguishers to be installed at facility 04 (Continuous Storage Area)  
(TAC 335.112 / 40 CFR 265.15 (b)(1))

Section G(4)(a) Inspection logs should include the date and time of inspection.  
(TAC 335.112 / 40 CFR 265.15 (d))

Section H(3) 1 "No Smoking" signs are needed at facility 04. (TAC 335.112 / 40 CFR 265.17 (a))

Section J 1(2)(b) Failure to maintain a written operating record for facility 01 and 04.  
(TAC 335.112 / 40 CFR 265.23 (a)(2))

Section K 1 TON does not have sudden and non-sudden liability for the Lead Pill (Facility 01). According to Steve Ralli, Financial Officer, TWC TON submitted a letter of credit for closure of \$123,000.  
(TAC 335.112 / 40 CFR 265 Subpart H)

TWC Solid Waste Inspection Report

CONTAINER STORAGE AREA CHECKLIST

TWC Reg. No. 33373

Reg. Facility No. 04

Acid  
Class of Wastes ( H )

- \*\*\*
1. Are containers in good condition? YES ☒ NO ☐
  2. Are the containers compatible with the wastes being stored? YES ☒ NO ☐
  3. Are containers kept closed and stored in a safe manner? YES ☒ NO ☐
  4. Are containers inspected weekly for leakage and deterioration? YES ☐ NO ☒
  5. Are containers holding **ignitable** or **reactive wastes** kept at least 15 meters (50 ft) from the facility's property line? N/A ☐ YES ☒ NO ☐
  6. Are containers holding **incompatible wastes** separated by a physical barrier or sufficient distance? N/A ☒ YES ☐ NO ☐
  7. Does the storage area have containment protection? YES ☒ NO ☐

8. Describe the Container Storage Area using comments and/or photos:

Containers are stored under a metal building on wooden pallets  
Containers stored in this area have not been inspected on any frequency (TAC 335.112/40 CFR 265.174)  
 \_\_\_\_\_  
 \_\_\_\_\_

\*\*\* An entry in this column indicates explanation/response is needed.

TWC Solid Waste Inspection Report

LANDFILLS CHECKLIST

TWC Reg. No. 33323

Reg. Facility No. 01

Inactive

Class of Wastes( H )

Type of Wastes: Lube wastes, threaded lube components, solvents

Type of Liner: Native Soil

Is there a Leachate collection and removal system? Yes ☐ No ☒

A. GENERAL OPERATING REQUIREMENTS

\*\*\*

1. Does the active part of landfill have an adequate **run-on** control system? YES ☒ NO ☐

2. Does the landfill have an adequate **run-off** management system? (See Comment) YES ☒ NO ☐

a. Is the run-off analyzed to determine if it is hazardous? YES ☒ NO ☐

b. If it is hazardous, how is it managed? \_\_\_\_\_

c. Is collected run-off discharged to surface waters? YES ☐ NO ☒

(1). If Yes, list TWC-WQ and EPA-NPDES Permit No(s): \_\_\_\_\_

3. Is the landfill managed so that **wind dispersal** is controlled? YES ☒ NO ☐

B. SURVEYING AND RECORD KEEPING

1. Is the following information maintained in the **operating record**:

a. On a map, the exact location, dimensions, and depth of each cell with respect to surveyed bench marks? YES ☒ NO ☐

b. The contents of each cell and approximate location of each haz. waste type within each cell? YES ☒ NO ☐

C. SPECIAL REQUIREMENTS

1. If **ignitable** or **reactive** waste are placed in the landfill:

a. Are they rendered non-ignitable or non-reactive before or immediately after placement in the landfill? N/A ☐ YES ☒ NO ☐

b. Describe or attach copy of treatment: \_\_\_\_\_

2. If **incompatible wastes** are placed in the same landfill:

Are they handled so as to prevent violent reactions, toxic or flammable gases, damage to the facility, or threat to humans or the environment? N/A ☒ YES ☐ NO ☐

3. If **free liquid wastes** (non-containerized) are placed in the landfill:

\*\*\*

Are the wastes treated so that no free liquids are present? N/A ☒ YES ☐ NO ☐

4. If a **container holding free liquid** is placed in the landfill:

Does facility comply with requirements of 40CFR 265.314(b)? N/A ☒ YES ☐ NO ☐  
(i.e.: Liquid is absorbed or solidified; container is very small;  
container is a battery, capacitor, etc.; container is a lab pack)

5. If **empty containers** are placed in the landfill:

Are they crushed or shredded prior to burial? N/A ☐ YES ☒ NO ☐

#### D. FOR CLOSED LANDFILLS OR LANDFILL CELLS

1. Is there evidence of **site instability** (settling, erosion, etc.)? NO ☒ YES ☐

2. Is there evidence of improper maintenance or inadequate drainage? NO ☒ YES ☐

#### E. GROUNDWATER MONITORING

1. Does the landfill have a RCRA groundwater monitoring system? N/A ☐ YES ☒ NO ☐

(Use GWM checklist if applicable)

MW no's  
TW-1, TW-2, TW-3, & TW-4

#### F. HSWA REQUIREMENTS

1. Is the landfill a "**new unit**"\*, August 1985 date of last waste placed into landfill (01)  
a replacement of an existing unit,  
or a lateral expansion of an existing unit? YES ☒ NO ☐

If Yes:

a. Has landfill received haz. wastes since May 1985? N/A ☐ YES ☒ NO ☐

b. Does landfill have two or more liners and a leachate  
collection system above and between such liners? N/A ☐ YES ☐ NO ☒

Comments: 1.5 acre fill area. The fenced area is approximately 30 acres.

A closure plan has been submitted and approved for this facility.

A(2) Facility 01 has a spring which surfaces within the landfill near the south end (See Attachment "B")

TOW has been sampling run-off from the landfill for dissolved lead (one month) on a basis that the landfill discharges. This sampling is required by the closure plan.

\* A landfill that first received hazardous wastes after Nov. 8, 1984.

TWC Solid Waste Inspection Report

CLOSURE-in-PROGRESS CHECKLIST

TWC Reg. No. 33323

Reg. Facility No. 01  
Inactive

Type of facility component: Landfill

1. Is the facility component being closed a RCRA unit? YES ☒ NO ☐
2. Type of closure: Full-Facility Closure ☒ Partial Closure ☐ \*\*\*
3. Has closure plan received TWC approval or final modification? N/A ☐ YES ☒ NO ☐  
Date of approval: 12-5-86
4. Is this the last on-site facility to be closed which requires RCRA groundwater monitoring? N/A ☐ YES ☒ NO ☐
5. Has an approved public notice of closure been published? N/A ☐ YES ☒ NO ☐  
Date published: 10-15-86
6. Is a public hearing required? YES ☐ NO ☒  
Date of hearing: \_\_\_\_\_
7. Has on-site closure work started? YES ☒ NO ☐  
Date work initiated: August 13 GWM wells installed, some pre-closure GWM has occurred.
8. Is closure work proceeding according to the work schedule in the approved closure plan? N/A ☐ YES ☒ NO ☐
9. Have 180 days elapsed since TWC approval of the closure plan? N/A ☐ YES ☒ NO ☐  
a. If Yes,  
Has TWC approved an extension period? N/A ☐ YES ☒ NO ☐
10. Was District Office notified of sampling event when complete removal (clean closure) of a Land Disposal facility was to have been accomplished? N/A ☒ YES ☐ NO ☐
11. Were TWC samples taken to verify completion of closure? YES ☐ NO ☐ N/A.

NOTE: List chain-of-custody sample tag numbers in comments.

12. Is the closure work completed? YES ☐ NO ☒  
Date of completion: \_\_\_\_\_
13. Has the closure certification been submitted to TWC? N/A ☒ YES ☐ NO ☐  
Attach copy or explain. Date of certification: \_\_\_\_\_

\*\*\* An entry in this column indicates explanation/response is needed.

## TWC Solid Waste Inspection Report

TWC Reg. No. 33323CLOSURE & POST-CLOSURE CHECKLISTLocation (CY)InspectedSection A - CLOSURE PLAN - Approved by TWC on 12-5-86

1. Circle hazardous waste facilities subject to RCRA CLOSURE:

CLOSURE: C T SI WP LT (LF) I TT TR WDW O

2. Does the facility have a written closure plan?

YES ☒ NO ☐ \*\*\*3. Does the closure plan address all hazardous waste facilities?YES ☒ NO ☐

4. Does the closure plan include:

a. A description of how and when the facility will be:

(1) Partially Closed-

N/A ☒ YES ☐ NO ☐

(2) Finally Closed-

YES ☒ NO ☐b. An up-to-date estimate of the maximum inventory of wastes in storage and treatment at any time during the life of the facility?YES ☐ NO ☒

c. An estimate of the expected year of closure?

YES ☒ NO ☐Year: See comment5. Does the plan include a schedule for final closure?YES ☒ NO ☐

Does the schedule include:

a. Time estimates

for each phase of closure for each area?

YES ☒ NO ☐

b. Total time estimate for closure?

YES ☒ NO ☐

6. Are the following Steps to Close included in the plan:

a. Removal of wastes

N/A ☐ YES ☒ NO ☐

b. Treatment of wastes

N/A ☒ YES ☐ NO ☐

c. Disposal of wastes

N/A ☐ YES ☒ NO ☐

d. Cap or final cover

N/A ☐ YES ☒ NO ☐

e. Decontamination

of equipment &amp; structures

YES ☒ NO ☐

f. Closure certification

YES ☒ NO ☐

7. Has the closure plan been amended as necessary to reflect changes in facility operations or design?

N/A ☐ YES ☒ NO ☐

\*\*\* An entry in this column indicates explanation/response is needed.

Section B - POST-CLOSURE PLAN

Circle hazardous waste facilities subject to RCRA POST-CLOSURE.

POST-CLOSURE:    SI       WP       LT       LF       O

\*\*\*

1. Does the facility have a **written post-closure plan**?                    N/A ☐    YES ☐    NO ☐                    *N A*
2. Does the plan address all RCRA Land Disposal facilities?                    YES ☐    NO ☐
3. Does the plan provide for 30 years of post-closure care?                    YES ☐    NO ☐
4. Does the post-closure plan include:
- a. A description of planned **groundwater monitoring** activities and frequencies?                    YES ☐    NO ☐
- b. A description of planned **maintenance activities** and frequencies to ensure the following:
- (1) Integrity final cover or other containment . . . . . YES ☐    NO ☐
- (2) Proper functioning of groundwater monitoring equipment . . . . . YES ☐    NO ☐
- (3) Proper functioning of leachate collection equipment . . . . . N/A ☐    YES ☐    NO ☐
- (4) Proper functioning of gas collection equipment . . . . . N/A ☐    YES ☐    NO ☐
- c. Name, address and phone number of facility **contact person** for the post-closure period?                    YES ☐    NO ☐
- d. Requirement for notice to local **land authority**?                    YES ☐    NO ☐
- e. Requirement for notice in **deed to property** of haz. waste disposal and future land use restrictions?                    YES ☐    NO ☐
5. Has the plan been **amended as necessary** during the operating life of the facility to reflect changes in operation or design?    N/A ☐    YES ☐    NO ☐
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Section C - CLOSURE and Post-CLOSURE COST ESTIMATES

CLOSURE COSTS:

\*\*\*

1. Is there a written closure cost estimate?

YES ☒ NO ☐

\$ 123,000

2. Is the closure cost estimate adequate and modified as necessary?

YES ☒ NO ☐

POST-CLOSURE COSTS:

3. Is there a written post-closure cost estimate?

N/A ☒ YES ☐ NO ☐

\$ \_\_\_\_\_

4. Is the annual estimate multiplied by 30  
to cover the entire post-closure care period?

N/A ☒ YES ☐ NO ☐

5. Is the post-closure cost estimate adequate and modified as necessary?  
(Incl. labor, notification & deed recordation)

N/A ☒ YES ☐ NO ☐

COMMENTS:

Ten's closure plan was approved 12-5-86 by TWC. The plan was approved  
with modifications (See Attachment "D").



TWC Reg. No. 33323

Checklist Closure / Post Closure

COMMENTS SHEET

Section A(4)(b)1 The closure plan fails to estimate the amount of wastes stored in  
Facility 01 before it was deemed inactive. (TAC 335.112/40 CFR 265.112(c)(2))

Section A(4)(c)1 As noted in the 12-5-86 notified closure plan, closure allows  
27 months from time issuance of permit for Lee Star Steel Co and Peter Inc.  
landfill (Permit No. HQ-50087). (See Attachment "D")

Section 1

Section 1

## TWC Solid Waste Inspection Report

**GROUND WATER MONITORING CHECKLISTS**

## 1. GROUND WATER MONITORING STATUS:

Complete the table for each Waste Management Area (WMA):

WMA	Description	Activity Status	Monitoring Status	Number of Wells
1	Landfill (Facility 01)	Inactive	1st yr	U 1 D 3
2				U D
3				U D
4				U D

Give date of approval for waivers, alternate plan, or assessment plan, as applicable: Alternate Plan 12-5-84

2. Provide a diagram locating each monitoring well and waste site(s). (See Attachment)  
List depths, diameter and completion data on each well not included A, B, C, & G on the previous inspection report.

3. Has the following been installed in the uppermost aquifer around each Waste Management Area:

- a. At least **one** hydraulically **upgradient** well? YES ☐ NO ☒ \*\*\*  
 b. At least **three** hydraulically **downgradient** wells? YES ☐ NO ☒  
 c. Indicate WMA(s) that are not compliant: See comment [3(A+B) + 7]  
 d. Describe possible problems on Comments Sheet.

4. If the WMA includes multiple waste management facilities, is each facility adequately monitored? N/A ☒ YES ☐ NO ☐

5. Does the facility have a **GW Sampling and Analysis Plan**? YES ☒ NO ☐  
Does it adequately address:

- a. Sample collection procedures YES ☒ NO ☐  
 b. Sample preservation and shipment YES ☒ NO ☐  
 c. Analytical procedures YES ☒ NO ☐  
 d. Chain of custody procedures YES ☒ NO ☐

6. Does the facility have an adequate **GW Quality Assessment Plan Outline**? YES ☒ NO ☐

7. If the company is performing an **alternate groundwater monitoring** program or a partial waiver monitoring program, is an approved Sampling and Analysis Plan followed? N/A ☐ YES ☐ NO ☒

**NOTE:** Complete the "GW Sampling Procedures Checklist", when observing well sampling procedures or co-sampling monitor wells at the facility.

8. Have records been kept of:

\*\*\*

- a. Analyses for ground water parameters? YES ☒ NO ☐
- b. Calculations of means and variances? *(Not required until waste is removed and sampling after and see attachment "D")* YES ☐ NO ☒ N/A
- c. Water surface elevations taken at each well sampling event? YES ☒ NO ☐
- d. Calculations of significant differences? *See 8(b)* N/A ☒ YES ☐ NO ☐
- e. Analyses of duplicate samples *(only well water elevations shown)* for contamination confirmation? *has been done* N/A ☒ YES ☐ NO ☐
- f. Analyses of samples taken as a result of implementing the Ground Water Quality Assessment Plan? N/A ☒ YES ☐ NO ☐
- g. Results of Ground Water Quality Assessment Plan? N/A ☒ YES ☐ NO ☐
- (1). Rates of Migration? YES ☐ NO ☐
- (2). Concentration of hazardous waste and/or constituents thereof? YES ☐ NO ☐
- (3). Analyses of quarterly ground water samples? YES ☐ NO ☐
- h. Copies of the annual reports *(Well sampling not performed yet)* of the groundwater monitoring program? YES ☐ NO ☒ N/A

9. Are self-reporting data being submitted *(See comment)* on the appropriate TWC forms?

YES ☐ NO ☒ N/A

+NOTE: Complete remaining checklists as applicable to each Waste Management Area+

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**FIRST YEAR BACKGROUND SAMPLING**Waste Management Area(s) Site (1)

1. Are all samples analyzed for:

\*\*\*

a. EPA Drinking Water Standards?

YES ☐ NO ☒

b. Ground water quality parameters?

YES ☐ NO ☒

c. Contamination indicator parameters?

YES ☐ NO ☒2. Are 4 replicate measurements of **contamination indicator parameters** made for each well sample?YES ☐ NO ☒3. Are ground water **surface elevations** determined at each well sampling event?YES ☒ NO ☐4. Briefly explain why facility is performing first-year sampling at this time:

TEN installed the four (4) monitoring wells around the hazardous waste  
landfill (Facility 01) in August 1986. This facility is awaiting closure  
based on Tenn. Sta. Steel Co. and before Inc. obtaining a permit for the hazardous  
landfill.

TWC Reg. No. 33323

Checklist FWP

COMMENTS SHEET

Section 1 / T&N installed four (4) ground water monitoring wells (MW) during the week of August 11-13, 1986. These wells are referred to as TN-1, TN-2, TN-3, & TN-4. The four (4) monitoring wells were installed via the Agreed Order (8-13-86) between T&N and the TWC. The agreed order also asked for the submital of a closure plan for the landfill (C1) and financial assurance.

Section 3(a+b) / T&N to date has performed monthly monitoring well water level elevations on TN-1, TN-2, TN-3, TN-4, and the free standing water level in the landfill. T&N has also performed pH, specific conductivity, and dissolved lead testing of run-off from the landfill (run-off), or monitors that waters discharge. Although, T&N has performed monthly water elevations, they have not designated which well is up gradient or which well is down gradient. These wells were monitored (water elevations) for the first time in December 1986. (TAC 335.112, 40 CFR 265.91)

Section 7 / T&N has not performed ground water sampling of monitoring wells no. TN-1, TN-2, TN-3, and TN-4 as stated by 3.2, page 3-3, of the approved closure plan (12-5-86). (See attachment "D"). T&N has only performed water well elevations on the four (4) monitoring wells. The plan has been approved, but not followed. (TAC 335.116(a))

Section 8 / See comment #7, above. See comment 1, next page

Section 9 / See attachment "D". Data will be submitted on TWC forms after water received and quarterly sampling starts. No monitoring well sampling has taken place to date.

TWC Reg. No. 33373

Checklist First Visit

COMMENTS SHEET

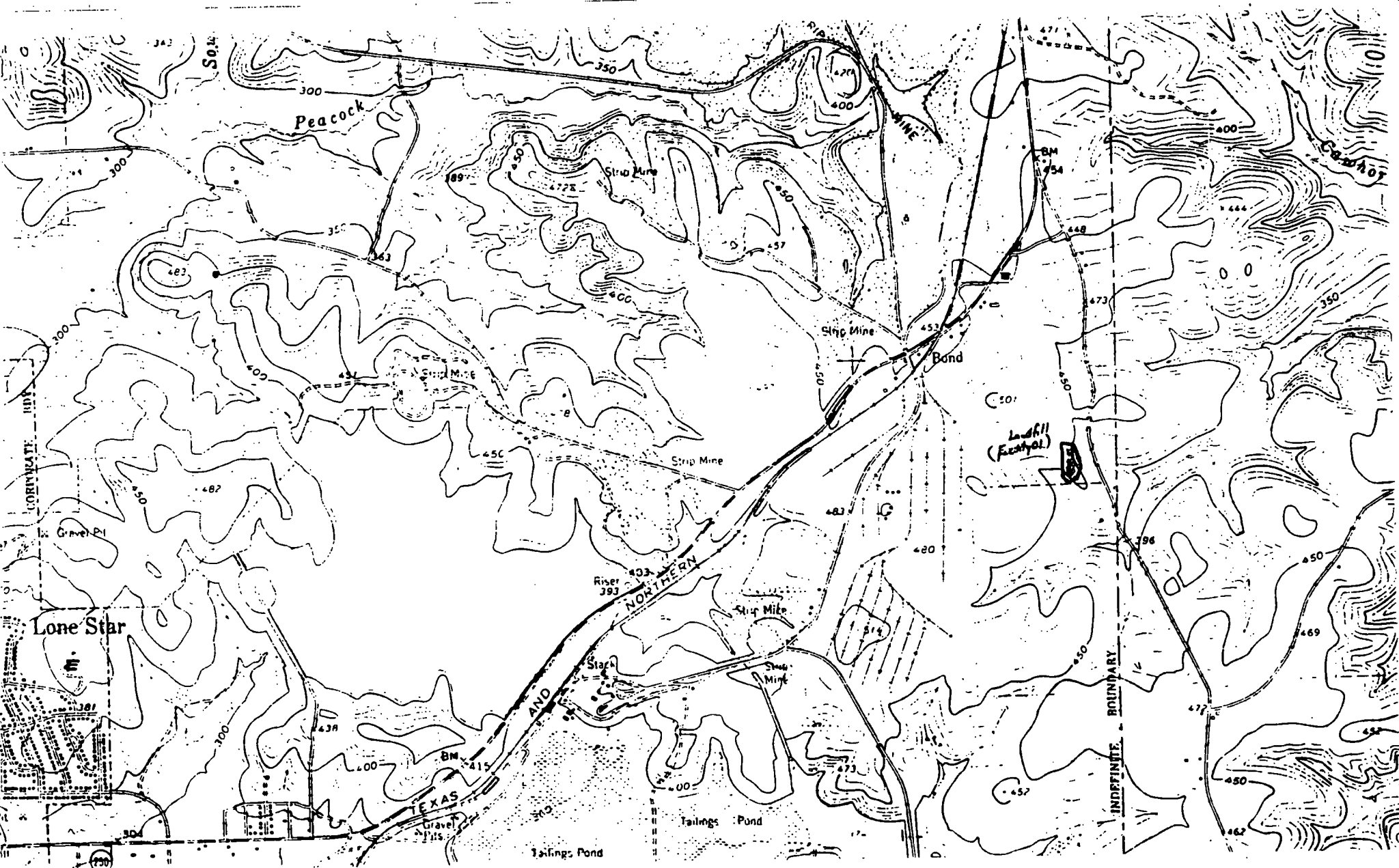
Section 1 Although, TON's sampling plan was approved in the closure plan, TON has not followed the ground water monitoring plan they submitted for the four (4) monitoring wells (See comment 7 on the previous page). This is of concern that TON has no plans to monitor the four (4) monitoring wells before or after waste excavation of the landfill for EPA drinking water standards, ground water quality parameters, contamination parameters, and that up-gradient/down-gradient designations have not been made on the wells. TON has taken five (5) months to develop ground water wells which seem inordinately long (See attachment "N"). It has been noted that TON disposed of hazardous waste containing lead and asbestos in the landfill. During this inspection samples were taken from

Section 1 monitoring wells no. TW-3 and TW-4 (See attachment "B" for well locations).

Sample HM 10546 (Pb, Cd, Cr, Ba) and SW 10900 (acid trace metals, VOA) were taken from TW-3 while sample HM 10547 (Pb, Cd, Cr, Ba) and SW 10899 (acid trace metals, VOA) were taken from TW-4.

Section 2 1 TON's closure plan stated replicates would not be performed during the initial sampling program; however, the modified closure plan amendments (See attachment "O", after waste removal) does call for replicates and statistics.

Section 1



# Texas Water Commission

## INTEROFFICE MEMORANDUM

**TO :** Russ Kimble, Chief, Reports & Management Section, **DATE:** 4-27-87  
Hazardous & Solid Waste Division  
**THRU** <sup>LC</sup> Luis E. Campos, Hazardous & Solid Waste Coordinator,  
Field Operations Division  
**ATTN:** MICHAEL MOON, Enforcement Coordinator  
**FROM :** Kevin Phillips, District 5  
**SUBJECT:** T & N Lone Star Warehouse Co., Registration No. 33373

On March 30, 1987, I conducted an industrial solid waste inspection of the subject facility. I was accompanied on the inspection by Mr. Steve Boyd of T & N Lone Star Warehouse Co. (T&N) and Mr. Mark Snyder of Lone Star Steel Co.

T&N is a bonded public warehouse which leases space to oilfield pipe manufacturers and sales companies, oil companies, and drilling companies. Hazardous wastes which entered facility 01 (Landfill) were generated by pipe inspection companies as a result of cleaning lead-based pipe threading compounds from the pipe's threads with solvent.

T&N was submitted for enforcement on October 8, 1985 by District 5. On August 13, 1986 the Texas Water Commission issued an Agreed Order to T&N in order to resolve violations of the Industrial Solid Waste Rules. In the Agreed Order issued, T&N was to submit a closure plan which addressed ground water monitoring and demonstrate financial assurance for the closure of the waste disposal facility 01 (Landfill).

During the industrial solid waste inspection conducted on 3-30-87, T&N was found to be in violation of the Agreed Order which required ground water monitoring and financial assurance. Since these violations are deficient of the Agreed Order and are Class I violations, the following information is being submitted for review and enforcement by Central Office.

The following violations are interpreted as Class I violations by District 5:

	<u>Violation</u>	<u>Data Source</u>	<u>Permit or Other Requirement</u>
1.	Failure to provide adequate financial assurance for the closure of the landfill.	CEI Investigation Report 3-30-87	TAC 335.112/40 CFR 265, Subpart H. Agreed Order August 13, 1986
2.	Failure to monitor ground water at the landfill as required by the approved closure plan.	"	Agreed Order August 13, 1986; TAC 335.116(a)
3.	Failure to determine which monitoring wells are adequate upgradient and downgradient wells.	"	TAC 335.116(b)/40 CFR 265.91



IOM - T&N Lone Star Warehouse Co.  
April 27, 1987  
Page 2

The following violations are interpreted as Class II violations by District 5:

<u>Violation</u>	<u>Data Source</u>	<u>Permit or Other Requirement</u>
1. Failure to identify the correct mailing address and contact person on the NOR.	CEI Investigation Report 3-30-87	TAC 335.6
2. Failure to make a hazardous waste determination on heavy equipment oils, locomotive oils, and vehicle oils.	"	TAC 335.62
3. Failure to label hazardous waste drums with the words "Hazardous Waste."	"	TAC 335.69(a)(3)
4. Failure to have the date of accumulation on hazardous waste drums in storage.	"	TAC 335.69(a)(2)
5. Failure to document the type and amount of each personnel training course.	"	TAC 335.112/40 CFR 265.16(d)(3)
6. Failure to document job titles and job descriptions for each person	"	TAC 335.112/40 CFR 265.16(d)(2)
7. Failure to have fire extinguishers in the container storage area which stores flammable waste.	"	TAC 335.112/40 CFR 265.32(c)
8. T&N should have a contingency plan for this facility, not a contingency plan labeled Lone Star Steel.	"	TAC 335.112/40 CFR 265.50
9. Failure to have a written waste analysis plan.	"	TAC 335.112/40 CFR 265.13
10. Failure to provide adequate security (fencing) around the hazardous waste landfill.	"	TAC 335.112/40 CFR 265.14(a)
11. Failure to post signs around the hazardous waste landfill that state "Danger-Unauthorized Personnel Keep Out."	"	TAC 335.112/40 CFR 265.14(c)

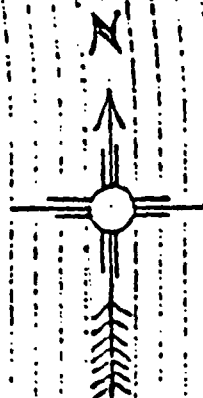
T&N Lone Star Warehouse Co.  
27, 1987

<u>Violation</u>	<u>Data Source</u>	<u>Permit or Other Requirement</u>
General inspection schedule be modified to include tion of fire equipment installed at container e area.	CEI Investigation Report 3-30-87	TAC 335.112/40 CFR 265.15(b)(1)
tion logs should include the nd time of inspections.	"	TAC 335.112/40 CFR 265.15(d)
e to post "No Smoking" signs container storage area.	"	TAC 335.112/40 CFR 265.17(a)
e to maintain a written ing record of the locations punts of hazardous waste ed of and stored for facility 04.	"	TAC 335.112/40 CFR 265.73(a)(2)
e to make weekly inspections te stored at facility 04 ner storage area).	"	TAC 335.112/40 CFR 265.174
e of the closure plan to te the amount of waste ed of at facility 01 (landfill).	"	TAC 335.112/40 CFR 265.112(a)(2)
e to keep records of industrial waste treatment, storage, and l activities.	"	TAC 335.9

*Phillips by John*  
Phillips, Inspector

*John W. Witherspoon*  
John W. Witherspoon, Manager

NW Corner  
J. BIRD SURVEY, A-7



SCALE: 1" = 100'

# PLAT SHOWING

FENCED-IN DUMP  
JNO. BIRD SURVEY, A-7  
MORRIS COUNTY, TEXAS

## LEGEND

PRESUMED ———  
ESTIMATED ———  
POND ELEVATION  
CONTOUR INTERVAL 2 FT.

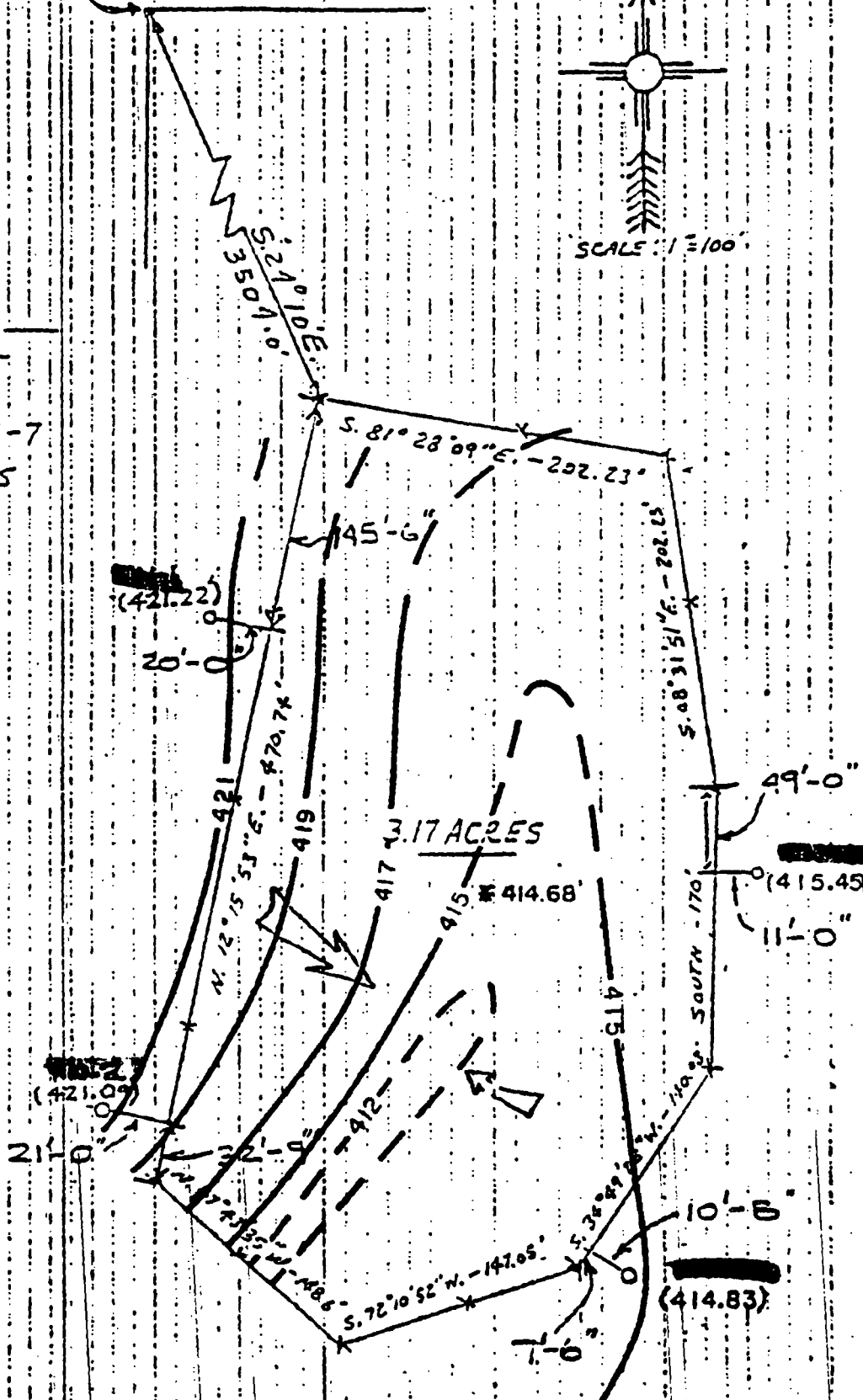
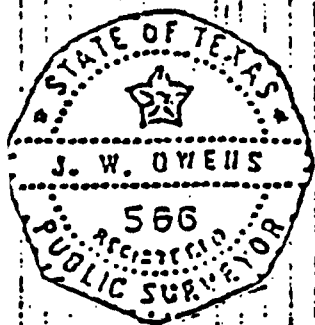


TABLE 1

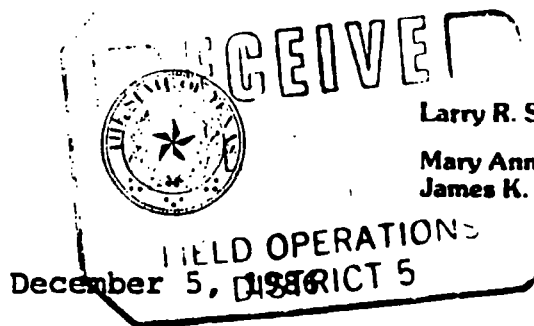
Summary of Well Construction Details  
and Initial Water Level Data

	Well			
	TN-1	TN-2	TN-3	TN-4
Top of casing (TOC)	435.94	436.16	430.66	431.91
Ground elevation	433.11	433.29	427.69	429.21
Bottom of well	410.3	403.6	403.1	400.2
Screened interval	413-418	406.6-416.6	406.1-411.1	403.2-413.2
Depth to water (from TOC) on 8/22/86	14.72	15.07	15.83	16.46
Water elevation 8/22/86	421.22	421.09	414.83	415.45
Elevation of on-site spring-fed pond			414.68	
Reference Benchmark			437.71	

All measurements in feet. All elevations in feet, msl.

Attachment "D" Reg. No. 33373  
**TEXAS WATER COMMISSION**

Paul Hopkins, Chairman  
Ralph Roming, Commissioner  
John O. Houchins, Commissioner



Larry R. Soward, Executive Director

Mary Ann Hefner, Chief Clerk  
James K. Rourke, Jr., General Counsel

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. J. D. Shiver, Executive Vice President, Operations  
T & N Lone Star Warehouse Company  
P.O. Box 187  
Lone Star, Texas 75668

Re: T & N Lone Star Warehouse Company  
Solid Waste Registration No. 33373  
Closure of Hazardous Waste Facility

Dear Mr. Shiver:

We have reviewed your letter dated October 30, 1986, which transmitted the Publisher's Affidavit and a clipping of the published Notice of Closure of your hazardous waste disposal facility (Facility Unit No. 01 on your Notice of Registration). We have also reviewed your closure plan for the subject facility.

This letter constitutes approval by the Executive Director of the subject hazardous waste facility closure plan, as modified below. Our evaluation indicates that the closure activities described in the plan should provide reasonable assurance of effective industrial solid waste management, subject to the submittal of certifications and the modifications listed below.

This closure plan is modified by the following provisions:

1. The accelerated ground water monitoring program which is to be conducted after removal of hazardous waste is completed (item 3.2.2. in the closure plan) shall be conducted in accordance with the procedures outlined in Enclosure 1.
2. It is noted that the schedule for closure allows 27 months for TWC issuance a permit for Lone Star Steel's landfill (Permit No. HW-50087). A revised schedule for closure shall be submitted to the Executive Director for review and approval within 30 days of issuance of the subject permit.

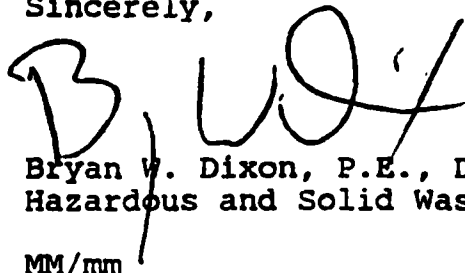
Mr. J. D. Sh. er  
Page 2  
December 5, 1986

3. When measuring pH of ground water samples (Appendix B - Sampling and Analysis Plan), the pH meter shall be calibrated prior to analyzing samples from each well using buffer solutions having pH values greater than and less than that of the sample being analyzed.

Upon completion of closure activities, certification shall be submitted by the owner or operator of the facility and by an independent Registered Professional Engineer that the hazardous waste management facility has been closed in accordance with the approved closure plan. Also, notification that the facility has been closed shall be made in accordance with the provisions of 31 Texas Administrative Code Section 335.6.

Should you have any questions regarding this matter, please contact Michael Moore of the Hazardous and Solid Waste Enforcement Section at 512/463-8425.

Sincerely,

A handwritten signature in black ink, appearing to read "B. W. Dixon", with a large, stylized "X" or flourish at the end.

Bryan W. Dixon, P.E., Director  
Hazardous and Solid Waste Division

MM/mm

cc: TWC District 5 Office

Enclosure 1

T&N Lone Star Warehouse Company - Reg. No. 33373  
"Accelerated" Ground Water Monitoring Program

Ground water monitoring wells at the landfill (Facility No. 01) shall be sampled quarterly for one year following the initial certification of closure (Step 12 in Table 4-2). The first sampling event shall take place within 30 days of certification, and each subsequent sampling event shall take place at 90-day intervals ( $\pm 10$  days) unless otherwise approved by the Executive Director. Sampling and analysis shall be conducted according to item 3.2.2. in the closure plan, and data for lead concentrations shall be statistically analyzed as follows:

1. First Quarter - Collect 4 individual replicate samples from each well and analyze for dissolved lead using the procedure described in Method 304 of Standard Methods for the Examination of Water and Wastewater, 16th edition (APHA, AWWA, WPCF). A minimum detection limit of 5  $\mu\text{g/L}$  shall be obtained using this method. For statistical evaluations, 5  $\mu\text{g/L}$  shall be used for any values which are less than the minimum detection limit. Determine the arithmetic means and variances for lead concentrations in each well.
2. Second and Third Quarters - Collect and analyze samples following the same procedures used during the first quarter. Determine arithmetic means and variances for dissolved lead for each well after each quarterly sampling event; these statistics shall be recalculated each quarter, using all replicate lead concentrations from the current and all previous quarters as individual samples (ie: mean and variance shall be calculated for each well using 8 samples the second quarter and 12 samples the third quarter).
3. Fourth Quarter - Collect and analyze samples following the same procedures used during the first quarter. When laboratory results are available for fourth quarter samples, means and variances for lead concentrations shall be calculated for each well as during the previous quarters, and the background mean and variance from the upgradient well shall be compared with means and variances for downgradient wells using the Student's t-test at the 0.05 level of significance.

Report the ground water monitoring data as required above for each monitor well on the enclosed forms within 20 days of completion of each quarterly laboratory analysis. Information shall be submitted for the highlighted sections of the example in Enclosure 2.

Enclosure 2 - Ground water monitoring report forms and  
instructions (attached)





QUARTERLY  
GROUND WATER MONITORING REPORT  
FOR HAZARDOUS WASTE FACILITIES  
(INTERIM PERMIT STATUS)

TABLE 1 - SAMPLE EVENT INFORMATION

Sample Date MM-DD-YY	Parameter Code	Sample Method	Parameter Code	Groundwater Elevation (ft.)
01-01-91	00077		72020	

To be completed by the owner/operator of a hazardous waste treatment, storage, or land treatment facility which is used to manage hazardous waste. Use reverse side for Appendix.

Company Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Business Address: \_\_\_\_\_ Zip: \_\_\_\_\_

TABLE 2 - CONTAMINATION INDICATOR PARAMETERS

Parameter Code	PH Standard Units Grab	Parameter Code	Conductivity µmhos Grab	Parameter Code	Total Organic Carbon mg/l Grab	Parameter Code	Dissolved Lead mg/l Grab
01	00400	00090		0000		T1049	
02	00400	00090		0000			
03	00400	00090		0000			
04	00400	00090		0000			
05	00400	00090		0000			
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200	00400	00090		0000			

Attachment "E" Reg. No. 33373

Ken  
Kevin

Closure Plan for Site #01  
Inactive Waste Landfill

T&N Lone Star Warehouse Company  
Lone Star, Texas

September 1986

EPA ID No. TXD981158249  
TX ID No. 33373

Each well was developed until the well water pH and conductivity stabilized and the water cleared. Following development, the well was bailed or pumped until no less than one volume (if bailed till dry) or three well volumes were removed (if the well recharged fast enough).

All well locations have been surveyed to establish horizontal control, top-of-casing (TOC) and ground surface elevations with respect to an established plant datum or mean sea level. Initial ground water level data were collected in order to estimate the hydraulic gradient and direction of ground water flow. The information gathered during this stage of the hydrogeological investigation will be used to prepare a preliminary report for submittal to TWC.

The locations of the initial four monitoring wells were chosen as the most likely positions to yield one upgradient and three downgradient wells. If, upon examination of the data gathered from the initial borings and wells, it is determined that this is not the case, it will be necessary to drill additional borings for completion as wells. A plan showing the proposed location of the additional well(s) will be submitted to TWC for approval prior to initiation of drilling. Following approval, the District 5 office of TWC will be notified at least 10 days prior to the start of drilling. Any additional wells will be completed using the same procedures as the first wells.

### 3.2 Groundwater Monitoring Program

#### 3.2.1 Initial Sampling and Analysis Program

Following installation and development of the wells, a routine sampling and analysis program will be initiated. The District 5 office of TWC will be notified by telephone at least ten days prior to each sampling event. This will allow the TWC the opportunity to observe sampling techniques and/or split samples. Procedures will follow those outlined in the "Sampling and Analysis Plan" (Appendix B).

Sampling will be done quarterly. The water elevation will be measured on each well before it is purged. To purge, three casing volumes of water will be removed, unless the well can be pumped or bailed to dryness. If recovery of wells which are bailed to dryness is sufficient, wells will be evacuated to dryness again. If necessary, the wells will be allowed to recover before the samples are collected.

Each well will be analyzed for pH, specific conductance, and lead. The results of the analysis will be reported to TWC within 20 days of receipt of laboratory results. During this initial sampling program, no replicates will be taken and no statistics performed. This program will remain in effect until all wastes have been removed from the site.

### 3.2.2. Sampling and Analysis for Clean Closure Certification

After excavation of waste has been completed, the sampling and analysis program needed to certify clean closure will begin. Water elevation measurement, purging, and sampling techniques will be the same as in the initial program. The District 5 office of TWC will be notified by telephone at least ten days prior to each sampling event. This will allow the TWC the opportunity to observe sampling techniques and/or split samples. Quadruplicate samples will be taken quarterly for a period of one year. One sample each quarter will be analyzed for pH and specific conductance; lead will be analyzed in quadruplicate. Within 20 days of receipt of laboratory results following each sampling event, the results will be submitted to the TWC on forms provided by the agency for that purpose. After four sampling events have been completed, the Student's t-test statistical analysis will be performed on the lead analytical results, using the method for accelerated groundwater monitoring which is to be provided by the TWC.

### 3.2.3. Sampling and Analysis Plan

The "Sampling and Analysis Plan" can be found in Appendix B.

## 3.3 Surface Water Monitoring Program

There is a surface water discharge (a spring) in the southern part of the landfill area. This discharge will be monitored monthly during those months in which there is a discharge leaving the landfill boundary. The approximate location is shown in Figure 3-1. Samples will be collected grab and analyzed for lead. Results of each month's analysis will be reported to the TWC by the twenty-fifth of each succeeding month.

Attachment "F" Reg. No. 33373  
TEXAS WATER COMMISSION

Paul Hopkins, Chairman  
Ralph Roming, Commissioner  
John O. Houchins, Commissioner



Larry R. Soward, Executive Director  
Mary Ann Heimer, Chief Clerk  
James K. Bourke, General Counsel

January 30, 1987

Mr. Martin J. Rich  
Chief Financial Officer  
T & N Industries, Incorporated  
P.O. Box 38565  
Dallas, Texas 75238-0565

CERTIFIED MAIL

Re: RCRA Financial Assurance  
T & N Industries, SW 33373

Dear Mr. Rich:

This agency has received the financial test documents submitted January 20, 1987 providing closure cost assurance for the above referenced facility.

Our understanding is that T & N Lone Star Warehouse is a wholly owned subsidiary of Lone Star Steel. Year-end financial statements for 1985 were provided to support this financial test instead of the required 1986 figures, and it was unclear whether the figures presented were T & N Lone Star Warehouse or Lone Star Steel figures.

In order for T & N to utilize the financial test, figures must be audited independently from Lone Star Steel. In the event that an independent audit cannot be performed, financial assurance for T & N must be provided by Lone Star Steel through the corporate guarantee as specified in 40 CFR 265.143. The Texas Water Commission will expect a revised submittal using 1986 figures and providing the required Auditor's Annual Report and the Auditor's Special Report no later than 3/31/87.

If you require any assistance, please contact Ms. Sonia Ralls of our Hazardous and Solid Waste Division at 512/463-7764.



























Sincerely,

  
Russell S. Kimble, Chief  
Reports and Management Section  
Hazardous and Solid Waste Division

SR:ok

cc: Texas Water Commission District 5 Office - Tyler

## BORING LOG SYMBOLS

	Sand		Sandy Clayey Silt
	Silt		Sandy Silty Clay
	Clay		Peat
	Silty Sand		Organic Clay Or Peaty Clay
	Clayey Sand		Shells
	Sandy Silt		Fill
	Clayey Silt		Shale
	Sandy Clay		Limestone
	Silty Clay		Caliche
	Silty Clayey Sand		Sandy Cobbly Gravel
	Sandstone		Marl
	Siltstone		Igneous Rock
	Claystone		Sandy Febbly Gravel



ERM-Southwest, Inc.

HOUSTON, TEXAS



# ERM - SOUTHWEST, INC.

## HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

### Drilling Log <sub>16</sub>

Location LONESTAR, TEXAS

W.O. Number 35-06

Well Number TN-1

Total Depth 70' Diameter 4 3/4"

Surface Elevation \_\_\_\_\_

Water level: Initial 10' 24 Hrs \_\_\_\_\_

Screen Dia. 2"

Length 5' Slot Size 0.01"

Casing Dia. 2"

Length 15 1/4'; 1/2'SUMP Type \_\_\_\_\_

Drilling Company SOUTHWESTERN LABS.

Drilling Method \_\_\_\_\_

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled 8/11-8/12/86

Sketch Map

Notes <sup>1</sup> Exploratory borehole drilled originally to 70' and grouted. TN-1 drilled to a depth of 23'. Adjacent to borehole.

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq. ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0					0-27.5	0-22	VERY SANDY CLAY TO VERY CLAYEY SAND-mottled yellow, orange, and red, gray sandy laminae and layers, small ferrous cemented sandstone rocks, sand grains.-subangular, medium grained organic debris, fill.
5							--at 7' have alternating layers of clayey sand and sand, organic debris and roots present, clay pockets and lenses.
10							--at 10' becomes brown and tan, sand is wet.
15				1.25			-- at 14' becomes tan and gray with gray clay pockets, damp and medium stiffness, sandstone and ferrous sandstone fragments.
20				4.50+			-- at 15' becomes orange and tan with soft white clay streaks.
25					27.5-29	22-37	CLAYEY SHALE - dark brown, hard, laminated with many dark olive green glauconetic sand* lenses (1/2" to 1/3" thick). Natural material
30							--at 24' have a decrease in sand lenses (1/4" to 1/3") some siderite layers and stones.
35					34-35		--at 29 1/2' have siderite layers
40					37-38	37-39	--at 34' see minor amounts of pyrite crystals along sand laminae.
					39-40	39-	VERY CLAYEY SAND-Reddish brown, .15 to .30 mm grain size. Dry.
					44-45		SLIGHTLY CLAYEY SAND-yellowish orange, dense, fairly clean sand, .1-.2 mm diameter, somewhat splintery grains, uncemented, clay. Has ferrous cemented laminae.
							--at 44' becomes yellow to red mottled sand with white to brown & gray clay pockets and small laminae.



**ERM - SOUTHWEST, INC.**

**HOUSTON, TEXAS**

Project **T & N LANDFILL GROUND WATER MONITORING SYSTEM**

Owner **T & N WAREHOUSE**

# Drilling Log 16

Location **LOVE STAR, TEXAS**

W.O. Number **35-06**

Sketch Map

Well Number **TN-1**

Total Depth \_\_\_\_\_ Diameter \_\_\_\_\_

Surface Elevation \_\_\_\_\_

Water level: Initial \_\_\_\_\_ 24 Hrs \_\_\_\_\_

Screen: Dia. \_\_\_\_\_

Length \_\_\_\_\_ Slot Size \_\_\_\_\_

Casing: Dia. \_\_\_\_\_

Length \_\_\_\_\_ Type \_\_\_\_\_

## Notes

\* Cohesive strength or Penetration Test (Blows per 6")

Drilling Company \_\_\_\_\_

Drilling Method \_\_\_\_\_

Driller **FLOYD SNEED**

Log By **H.C. SHUMWAY**

Date Drilled \_\_\_\_\_

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type Cohesive Strength (lbs/sq. ft.) or Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structure's)
45						
50			50/2.5"			-- at 49' becomes tan and white Queen City sand. 10-15 mm grains, angular to subangular, very dense, dry.
55			50/3"			-- at 54' becomes white clean Queen City sand, dry.
60			50/2.5"			-- at 62' driller notes wet sand.
65			44/6"			-- at 64.5' becomes dense tan and white Queen City sand, wet. Bottom clay layer with leaf molds.
70			50/5"			-- at 69' have wet gray sand
						* Note: The glauconitic sand is composed of either glauconite or chamosite. The difference is not perceivable in the field.





ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

## Drilling Log

Location LONE STAR, TEXAS

W.O. Number 35-06

Sketch Map

Well Number TN-2

Total Depth 70'

Diameter 4 3/4"

Surface Elevation \_\_\_\_\_

Water level: Initial 9'

24 Hrs \_\_\_\_\_

Screen Dia. 2"

Length 10'

Slot Size 0.01"

Casing Dia. 2"

Length 16.5'/3' SUMP

Type SCH 40 PVC

Drilling Company SOUTHWESTERN LABS.

Drilling Method AIR ROTARY TO 16'  
THEN WET ROTARY

### Notes

Initially the hole was logged to 70' and grouted up. Then TN-2 was re-drilled to 29.5'

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled 8/13/86

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq.ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0					0-20	0-28.5'	CLAYEY SAND TO VERY SANDY CLAY--mottled orange to red, .2mm dia. grain size, ferrous sandstone fragments, organic debris, fill, dry. --at 4' has clay pockets and many ferrous rock fragments, slightly damp. --at 6' have sand layer, grain size .1 to .3mm. --at 7' becomes tan and white with few ferrous rock fragments --9' becomes wet, non-cemented tan and light gray silty sand. --11' becomes orangish tan to red sandy clay --12' has organic debris and brown clay laminae.  --at 18' becomes light gray and gray sand with few silt pockets and organic debris, fill.
5							
10							
15							
20							
25					24-25		
30					28.5-29.5	28.5-49	CLAYEY SHALE - dark brown, laminated with silty sand small laminae, many dark olive green glauconitic sand lenses 1/4 to 1" in thickness. Have occasional hard sideritic layers 1/2 to 1 1/2" thick. Natural.
35					34-35		--at 34' have a decrease in glauconite sand lenses, few small pyrite crystals along silt laminae
40					39-40		
					44-45		--at 44' have green Clay/Silt layers and a decrease in glauconitic sand layers



**T & N WAREHOUSE**

### Sketch Map

**35-06**

### Diameter

**24 Hrs**

### Slot Size

Type

### Drilling Method

**Date Drilled 8/13/86**

PAGE 2 of 2



ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

## Drilling Log

Location LONE STAR, TEXAS

W.O. Number 35-06

Sketch Map

Well Number TN-3

Total Depth 35' Diameter 4 3/4"

Surface Elevation           

Water level: Initial 12.5' 24 Hrs 14.5'

Screen: Dia. 2"

Length 5' Slot Size 0.01"

Casing: Dia. 2"

Length 16.4'/3' SUMP Type SCH 40 PVC

Drilling Company SOUTHWESTERN LABS.

Drilling Method AIR ROTARY

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled 8/13/86

### Notes

Hole drilled initially to 35' and then grouted up to the surface. TN-3 redrilled to a depth of 29.4'.

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq. ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0					0-20	0-4	VERY SANDY CLAY TO CLAY SAND - mottled orange to tan, ferrous sandstone fragments, gravel, fill.
5						4-6	SLIGHTLY CLAYEY SAND - orange, grain size is from .2-.25 mm.
						6-7	--at 5' becomes tan sand with tan to red clay lenses, fill.
10						7-10	VERY SANDY CLAY - reddish to yellowish brown, with ferrous sandstone fragments, fill.
						10-13.5	SAND - tan, with silty sand and very sandy clay layers, dry, fill.
							--at 10' dry
15						13.5-16.5	SILTY SAND - dark olive green, with glauconitic sand*, grain size .1-.3 mm, Natural
							--at 12' becomes blackish green, wet.
20						16.5-18	SANDSTONE - dark olive green, wet, with siderite layers (1/2" thick)
						18-31.5	CLAYEY SAND - dark olive green glauconite sand, wet.
25					24-25		CLAYEY SHALE - dark brown, silt laminae.
							Lenses of dark olive green glauconitic sand; size and amount of lenses decreases with depth.
30					29-30		--at 24' have pyrite crystals and mica flakes in green sand lenses
							at 29' very few sand lenses.
35					34-35	31.5-35	VERY CLAYEY SAND - orangish brown, .15 to .25 mm subrounded grains, micaceous, dry.
40							

\*NOTE: Glauconitic sand may be composed of either glauconite or chamosite. The difference is not perceivable in the field.



ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner

T & N WAREHOUSE

Location LONE STAR, TEXAS

W.O. Number 35-06

Well Number TN-4

Total Depth 33<sup>1</sup> Diameter 4 3/4"

Surface Elevation \_\_\_\_\_

Water level: Initial 13' 24 Hrs 14.2'

Screen Dia. 2"

Length 10' Slot Size 0.01"

Casing Dia. 2"

Length 14' 3" SUMP Type SCH 40 PVC

Drilling Company SOUTHWESTERN LABS.

Drilling Method AIR ROTARY

Driller FLOYD SNEED

Log By H.C. SHUMWAY

8/12-  
Date Drilled 8/13/86

## Drilling Log

Sketch Map

### Notes

<sup>1</sup> Hole originally drilled to 33' then grouted to surface. TN-4 Redrilled to a depth of 29'.

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq. ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0					0-5	0-6	CLAYEY SAND TO VERY SANDY CLAY- mottled reddish tan color, many ferrous sandstone fragments, clay pockets, fill.
5				23/37	1-1.5		--at 3' have limonite layers/large fragments,
					2-3		--4' becomes light gray sandy clay
					3-20	6-8.5	--5' becomes light brown sandy clay with clay, clay sand and ferrous sandstone layers.
				1.50	continuous on 1 foot intervals	8.5-12	SILTY CLAY - light brown, white clay laminae and streaks, large ferrous sandstone fragments.
10				4.00	8.5-9		CLAY - dark gray, very soft, few dark green glauconite sands*
15						12-17	--at 9' becomes bluish gray hard clay with increase in green sand (Natural)
20							Sandstone - dark olive green, with glauconite sand, some siderite layers.
25					24-25	17-31.5	--at 13' becomes wet
30					29-30		CLAYEY SHALE - dark brown, laminated, small silt laminae, and many dark olive green glauconite sand lenses that decrease with depth, small pyrite crystals along laminae. Sand damp but not wet.
35					32-33	31.5-33	--at 29' very little green sand, predominately clayey shale
40							CLAYEY SANDSTONE - orange, .2 to .3 mm subangular grains, fairly cohesive, white clay lenses and laminae with little mica. Dry.

\*Note: Glauconitic sand may be composed of either glauconite or chamosite. The difference is not perceivable in the field.

	December 86	January	February	March	April
TN-1	420.77	421.13	421.10	421.57	421.38
TN-2	421.21	421.38	421.32	421.63	421.43
TN-3	415.74	414.98	414.94	412.98	412.88
TN-4	416.16	416.37	416.21	416.04	415.76
Pond	414.50	414.50	414.50	412.03	412.03

\* All water level evaluations (MSL)(foot)

T+N attributes cutting of the southern dike to the lower elevations observed at monitoring well no. 3 (TN-3). The dike was breached in February.

TEXAS WATER COMMISSION

District No.

Monitoring Well Elevations

T+N Lone Star Warehouse Co.

Reg. No. 33373

DW0550

TEXAS WATER COMMISSION  
NOTICE OF REGISTRATION  
INDUSTRIAL SOLID WASTE GENERATION/DISPOSAL

06-10-86

THIS IS NOT A PERMIT AND DOES NOT CONSTITUTE AUTHORIZATION OF ANY WASTE MANAGEMENT ACTIVITIES OR FACILITIES LISTED BELOW. REQUIREMENTS FOR SOLID WASTE MANAGEMENT ARE PROVIDED BY TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TEXAS WATER COMMISSION (TWC). CHANGES OR ADDITIONS TO WASTE MANAGEMENT METHODS REFERRED TO IN THIS NOTICE REQUIRE WRITTEN NOTIFICATION TO THE TWC.

DATE OF NOTICE: 06-13-86

REGISTRATION DATE: 10-15-85

REGISTRATION NUMBER: 33373

EPA I.D. NUMBER: TXD981158249

THE REGISTRATION NUMBER PROVIDES ACCESS TO STORED INFORMATION PERTAINING TO YOUR OPERATION. PLEASE REFER TO THAT NUMBER IN ANY CORRESPONDENCE.

COMPANY NAME: TEN LONE STAR WAREHOUSE CO.  
P.O. BOX 187  
LONE STAR TX 75668

GENERATING SITE LOCATION:  
HIGHWAY 253, LONE STAR, TEXAS  
CONTACT PERSON: GEORGE HART  
PHONE: (214) 656-3461  
NUMBER OF EMPLOYEES: GREATER THAN 100  
TWC DISTRICT: 05

REGISTRATION STATUS: ACTIVE  
REGISTRATION TYPE: GENERATOR  
HAZARDOUS WASTE STATUS: GENERATOR/TSD FACILITY

I. WASTE GENERATED:

WASTE NUMBER	DESCRIPTION	CLASS	CODE	DISPOSITION
001	THREADLUBE COMPOUND	IH	974020	ON-SITE/OFF-SITE
	EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D008			
002	SOLVENTS, SPENT	IH	910100	ON-SITE/OFF-SITE
	EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D001			
003	VARNISH RESIDUE	IH	983540	ON-SITE/OFF-SITE

NOTICE OF REGISTRATION (CONTINUED)  
REGISTRATION NUMBER: 33373  
COMPANY NAME: TEN LONE STAR WAREHOUSE CO.

PAGE 2

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): 0008, 0001

004	OILS, WASTE	I	110450	ON-SITE/OFF-SITE
005	MISC. PLANT WASTES	II	270770	ON-SITE
006	GARBAGE	II	280160	ON-SITE/OFF-SITE
007	OIL, WATER SOLUBLE	I	109770	OFF-SITE

II. SHIPPING/REPORTING: PURSUANT TO TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TWC PERTAINING TO INDUSTRIAL SOLID WASTE MANAGEMENT, ISSUANCE OF MANIFESTS AND MONTHLY REPORTING ARE REQUIRED FOR OFF-SITE STORAGE/PROCESSING/DISPOSAL OF THE FOLLOWING CLASS I WASTES LISTED IN PART I. A SHIPMENT SUMMARY REPORT SHOULD BE SUBMITTED FOR EACH MONTH NOT LATER THAN THE 25TH OF THE FOLLOWING MONTH.

001	974020	THREADLUBE COMPOUND
002	910100	SOLVENTS, SPENT
003	983540	VARNISH RESIDUE
004	110450	OILS, WASTE
007	109770	OIL, WATER SOLUBLE

III. ON-SITE WASTE MANAGEMENT FACILITIES:

FAC NO.	FACILITY	STATUS
01	LANDFILL DISPOSAL OF WASTE NUMBER(S) 001, 002, 003, 005, 006 30000 CY  SUBJECT TO PERMIT NUMBER (PENDING) PREVIOUSLY MINED AREA BACKFILLED WITH WASTE AND COVERED	INACTIVE
02	LANDFILL DISPOSAL OF WASTE NUMBER(S) 005 8250 CY PREVIOUSLY MINED AREA BACKFILLED WITH WASTE AND COVERED	ACTIVE
03	TANK (SURFACE) STORAGE OF WASTE NUMBER(S) 004 525 G TANK FOR COLLECTION OF WASTE OILS PRIOR TO SALE	ACTIVE

NOTICE OF REGISTRATION (CONTINUED)  
REGISTRATION NUMBER: 33373  
COMPANY NAME: T&N LONE STAR WAREHOUSE CO.

PAGE 3

04	CONTAINER STORAGE AREA STORAGE OF WASTE NUMBER(S) 001, 002, 003	ACTIVE
05	MISCELLANEOUS STORAGE CONTAINERS STORAGE OF WASTE NUMBER(S) 006 MISC. CONTAINERS, COLLECTION OF WASTE 06	ACTIVE

UNLESS OTHERWISE STATED ABOVE, FACILITIES ARE LOCATED  
AT HIGHWAY 250, LONE STAR, TEXAS  
COUNTY OF MORRIS

#### IV. RECORDS.

A. FOR PURPOSES OF FILING ANNUAL REPORTS PURSUANT TO TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TWC PERTAINING TO INDUSTRIAL SOLID WASTE MANAGEMENT, RECORDS SHOULD BE MAINTAINED FOR STORAGE, PROCESSING AND/OR DISPOSAL OF THE FOLLOWING WASTE(S) LISTED IN PART I:

001 974020 THREADLUBE COMPOUND

002 910100 SOLVENTS, SPENT

003 983540 VARNISH RESIDUE

004 110450 OILS, WASTE

005 270770 MISC. PLANT WASTES

006 280160 GARBAGE

B. PROOF OF RECORDATION IN THE COUNTY DEED RECORDS, AS REQUIRED BY TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TDWR, SHOULD BE SUBMITTED TO THE EXECUTIVE DIRECTOR FOR THE FOLLOWING FACILITIES LISTED IN PART III IN ACCORDANCE WITH THE FOLLOWING SCHEDULES:

NEW FACILITIES - PRIOR TO INITIATION OF  
DISPOSAL OPERATIONS.

EXISTING FACILITIES - AS SOON AS POSSIBLE, BUT NO  
LATER THAN SIXTY (60) DAYS FROM  
THE DATE OF THIS NOTICE, UNLESS  
PREVIOUSLY SUBMITTED.

FAC NO FACILITY

-----

01 LANDFILL

02 ~~LANDFILL~~



REF. 7

ISW # GENERAL File  
T & N Lone Star Warehouse

## Texas Water Commission

### INTEROFFICE MEMORANDUM

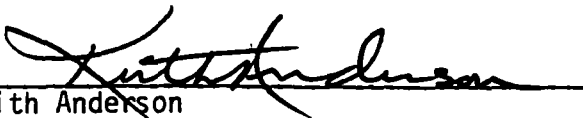
TO : Mert Coloton, Chief, Enforcement Section  
Hazardous & Solid Waste Division  
THRU :

DATE: October 23, 1985

FROM : Keith Anderson, District 5

SUBJECT: T & N Lone Star Warehouse Company, No Registration

Attached are copies of Chain of Custody Tags SW 06393 - SW 06397 and SW 00430 recently received by District 5. These tags indicate the analytical results for samples collected at T & N Lone Star Warehouse Company, Lone Star, Texas, on 9/19/85 during a District 5 solid waste sampling inspection. These results were summarized and reported by my IOM to you dated 10/11/85. Please see that copies of these tags are added to both District 5's CMI report dated 10/7/85 and the investigation report/enforcement request dated 10/8/85.

  
Keith Anderson

  
John W. Witherspoon, Manager

Attachments



10849

NO. **SW 06395**

District 5

Org. No. 343 Work No. 9091 Lab. TDH

Site Name TEN Long Star Warehouse Co. SEP 30 1985

Site Location Fili 250, approx. 3 mi. NE of Lower Star

Point of Collection SAMPLE TN OCT-13 13 13

\* deposit on south southeast side of landfil

County Maricopa Basin 04/03 Lypress Creek

Method of Collection plastic soap - subsamples  
composited - glass jar w/ teflon lid  
liner.

Type Facility: ☐ Drum; ☐ Tank; ☐ Impoundment; ☒ Landfill

☐ Waste Pile; ☐ Landfarm; ☐ Other

Time Collected 1100 hrs (am; pm) Date Shipped 9/19/85

Add. COC #s SW06394, 06396, 06397, 06398

ODOR: ☒ Yes; ☐ No; Describe grease (slight)

priority 32

S.W. Registration						Permit Number						Page No.		Due Date UP	Date			No. of Pages												
															Mo.	Day	Yr.													
1				9	10					18	19	21	22	23	24	25	26	27	28	29										
				NONE						NONE		-	B	0	9	1	9	8	5	W										
30 Code					35 Parameter Value					44 Code					49 Parameter Value					58 Code					63 Parameter Value					71

**TEXAS WATER COMMISSION**

3-0849

NO. **SW 06395**

District 5 Org. No. 343 Work No. 9091 Lab. TKA

Material Sampled: ☒ Solid waste (W); ☐ Liquid waste (L); ☐ Soil (E); ☐ Well (M);

☐ Stream (S); ☐ Other (O)

Comments: Dry, gray residue - powdery when crushed.  
EP Tox for Lead.

(continued on back)

[illegible]

## 1849

District 5

Org. No. 343 Work No. 9091 Lab. TDH

Point of Collection TN-3 = Oct 17 1960  
bucket on southern side  
of landfill

Type Facility: ☐ Drum; ☐ Tank; ☐ Impoundment; ☒ Landfill

☐ Waste Pile; ☐ Landfarm; ☐ Other

Time Collected 1115 hrs (am, pm) Date Shipped 9/19/55

Add. COC #s SW06394, 06395, 06397, 06398

ODOR: ☒ Yes; ☐ No; Describe fresh

priority 324

S.W. Registration						Permit Number								Page No.				Date Mo. Day Yr.
9						10								18				29
NONE						N C N E								B O G I R S W				
30 Code						35 Parameter Value								44 Code				49 Parameter Value
58 Code						63 Parameter Value								71				

19 Priority 324

057 97 232



District 5 Org. No. 343 Work No. 9091 Lab. THF

Material Sampled: ☒ Solid waste (W); ☐ Liquid waste (L); ☐ Soil (E); ☐ Well (M);

☒ Stream (S); ☐ Other (O)

Comments Black greasy material (thread lube  
compound) w/ metallic flakes - EP tax for load

(continued on back)

Lab Only	Date	rec'd. <b>SEP 20 '85</b>	
		<b>OCT 03 '85</b>	
	cmplt:		
Analyst sign: 			
Preservation: <input type="checkbox"/> None; <input checked="" type="checkbox"/> Ice; <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> ; <input type="checkbox"/> HNO <sub>3</sub> , <input type="checkbox"/> Other _____			
Auxiliary Tags _____ <input checked="" type="checkbox"/> LEACHATE: <input checked="" type="checkbox"/> EP Toxicity Series: _____ TDWR			

[illegible]

1849

NO. SW 06397

District

5

Org. No.

Work No. \_\_\_\_\_

9091

Lat

En

Site Name

16391  
TEN Line Star Warehouse Co

SEP 30 1957

**Point of Collection**

SIMPLE IN-4 = structure

### Site Location

FIN 250, approx 3 mi. NE of Lone Star

water in north-central portion  
of landfill

**County**

11/10/15

## Basin

0403 Cypress Creek

### Method of Collection

glass jar w/ teflon lid liner

Type Facility: ☐ Drum; ☐ Tank; ☐ Impoundment; ☒ Landfill

☐ Waste Pile; ☐ Landfarm; ☐ Other

Time Collected 1125 hrs (am, pm) Date Shipped 9/19/55

Add. COC #s SW06394, 06395, 06396, 06398

ODOR: ☒ Yes; ☐ No; Describe \_\_\_\_\_

priority 321

[illegible]

**TEXAS WATER COMMISSION**

49

NO. SW Q6397

District

**Org. No.**

34/3

017 01

9071

Lab



伊犁

**Material Sampled:** ☐ Solid waste (W); ☐ Liquid waste (L); ☐ Spoil (E); ☐ Well (M):

☐ Stream (S); ☒ Other (O) ground water seepage into lined fill

Comments: 5 ml  $\text{HNO}_3$  (conc.) added to sample.

(continued on back)

Lab Only	Date	rec'd: <b>SEP 30 85</b>	
		<b>SEP 30 85</b>	
	cmplt:		
Analyst sign:			
Preservation: <input type="checkbox"/> None; <input checked="" type="checkbox"/> Ice; <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> ; <input checked="" type="checkbox"/> HNO <sub>3</sub>			
<input type="checkbox"/> Other _____			
Auxiliary Tags _____			
<input type="checkbox"/> LEACHATE: _____ EP Toxicity Series; _____ TDWR			

[illegible]



REF. 8

RECORD OF  
COMMUNICATION☒

Phone Call

☐

Discussion

☐Field  
Trip☐

Conference

☐

Other (Specify)

TO: Marriane Buchannon  
Assistant General Manager

FROM: Texas Water District

FROM:  
James A. Harris, Jr.ICF/FIT Geologist  
(214) 744-1641DATE:  
9/15/88

TIME: 1330

SUBJECT: What Is The Water Usage For Lone Star City And The  
Surrounding Region?

## SUMMARY OF COMMUNICATION:

Ms. Buchannon said Lake of the Pine supplies Lone Star. Emison Creek Reservoir is owned by Lone Star Steel and provides drinking and industrial water for the plant. LSS used to sell their water as a supply to the city of Lone Star 4 or 5 years ago but the city let the contract expire and moved onto Lake of the Pines as their source. She also said the city does not use any groundwater. To her knowledge, groundwater use in the surrounding area was confined to shallow wells, but has been mostly discontinued.

She also said that the population estimate of Lone Star was 2,023 people.

## CONCLUSIONS, ACTION TAKEN OR REQUIRED:

## INFORMATION COPIES TO:

REF. 1

RECORD OF  
COMMUNICATION

☒

Phone Call

☐

Discussion

☐

Field  
Trip

☐

Conference

☐

Other (Specify)

TO: Marriane Buchannon  
Assistant General Manager

FROM:  
James A. Harris, Jr.

DATE:  
9/15/88

NE Texas Water District

ICF/FIT Geologist  
(214) 744-1641

TIME: 1330

SUBJECT: What Is The Water Usage For Lone Star City And The  
Surrounding Region?

SUMMARY OF COMMUNICATION:

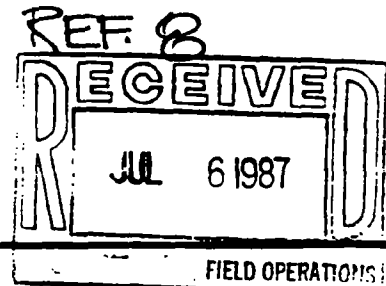
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She also said that the population estimate of Lone Star was 2,023 people.

CONCLUSIONS, ACTION TAKEN OR REQUIRED:

INFORMATION COPIES TO:





# Texas Water Commission

## INTEROFFICE MEMORANDUM

TO : Russ Kimble, Chief, Reports & Management Section, DATE: 7-3-87  
Hazardous & Solid Waste Division

THRU : Luis E. Campos, Hazardous & Solid Waste Coordinator,  
Field Operations Division

FROM : Kevin Phillips, District 5

SUBJECT: T&N Lone Star Warehouse Co., Registration #33373

On March 30, 1987, I conducted an industrial solid waste inspection of the subject facility and samples were taken from two of the facility's RCRA landfill ground water monitoring wells. I was accompanied by Judy Yocom and Mark Snyder of Lone Star Steel, who are working as consultants for the T&N Lone Star Warehouse Co.

A total of four samples were taken from two monitoring wells. The wells tested were the monitoring wells which were installed via an agreed order from TWC dated August 13, 1986. Monitoring wells numbers 3 and 4 were the two wells sampled. Well #3 is located on the southeast corner of the landfill and well #4 is located approximately midway of the landfill on the west boundary. The designation of up-gradient or downgradient wells has not been made for the wells at this facility. Chain of custody tag numbers HM 10546 and SW 10900 were used for monitoring well #3 and chain of chain of custody tag numbers HM 10547 and SW 10899 were used for monitoring well #4. Chain of custody tag numbers SW 10899 and SW 10900 indicated less than detectable limits for acid extractables, base neutral extractables, pesticides, and volatile organics (see attached sample results). Samples HM 10546 and HM 10547 were tested for cadmium, lead, barium, and chromium. See Table I for results:

Table I

Chain of Custody Tag #	Parameter	(TAC 335)	
		Parameter Value(mg/l)	Max.Conc. of Consti- tuents for Groundwater(mg/l)
HM 10546	pH	6.0 s.u.	NA
	Conductivity	335 umhos	NA
	Cadmium (E.P.Tox.)	< .008	.01
	Lead "	.022	.05
	Barium "	.266	1.0
	Chromium "	.010	.05
HM 10547	pH	5.8 s.u.	NA
	Conductivity	840 umhos	NA
	Cadmium "	.010	.01
	Lead "	.040	.05
	Barium "	.056	1.0
	Chromium "	.642	.05

IOM- T&N Lone Star Warehouse Co.  
July 3, 1987  
Page 2

In the sample taken from monitoring well #4, the cadmium value is equal to the maximum concentration of constituents for ground water protection listed in TAC 335, which is .010 mg/l. Chromium analysis for this well measured .642 mg/l. This level exceeds the .05 mg/l value by ten times in TAC 335, maximum concentration of constituents for ground water protection.

Please review these results for appropriate action.

*John W. Witherspoon*

---

Kevin Phillips, Inspector

---

John W. Witherspoon, Manager

Attachments

TXD98158249

REF. 9

## TEXAS WATER COMMISSION

File

I.B



SEP 13 1986

SW-EA

AGREED ORDER

Assessing Administrative Penalties; and  
Requiring Certain Actions of T & N Lone Star  
Warehouse Company, Solid Waste Registration No.  
33373.

On the 13th day of August, 1986, came on to be considered the Petition and Report of the Executive Director, alleging violations of the Texas Solid Waste Disposal Act and the Texas Water Commission ("Commission") rules pertaining to industrial solid waste management and requesting appropriate relief, including administrative penalties. The facility made the subject of the Executive Director's Petition is T & N Lone Star Warehouse Company, P. O. Box 3877, Lone Star, Texas 75668.

After proper notice to T & N Lone Star Warehouse Company (referred to as "T & N"), the parties appeared and announced to the Commission that they had settled all matters in controversy between them and requested the Commission enter this Agreed Order.

This Agreed Order is entered solely for the purpose of resolving the disputed claims between the Executive Director and T & N, and is entered upon the recommendation and consent of the Executive Director and T & N, and without any admission by T & N of the allegations contained in the Findings of Fact and Conclusions of Law or any other factual or legal matter. For this reason this Agreed Order, or any provision hereof, is not to be construed, and will not be construed, to any extent or for any purposes, however and whenever arising, as an admission of liability or violation, directly or indirectly, on the part of T & N, its successors or assigns; nor shall this Agreed Order be admitted into evidence or used in any way, directly or indirectly, in any judicial or administrative proceeding against any party or in any other manner against any party for any purpose other than in further proceedings by the parties hereto to enforce the terms of this Agreed Order.

The Commission, after considering the Executive Director's Petition and Preliminary Report on file, the Answer of T & N, the evidence presented therein, and the argument of all parties, makes the following Findings of Fact and Conclusions of Law:

Findings of Fact

1. The Executive Director has filed a Petition and Preliminary Report in this matter wherein the following findings of fact and the conclusions of law are alleged:

## Findings of Fact

- a. T & N is a warehouse in the business of leasing storage space to oilfield pipe manufacturers and sales companies, oil companies and drilling companies, which is located along F.M. 250 approximately three miles east of Lone Star, Texas.
- b. The T & N facility is assigned Industrial Solid Waste Registration No. 33373.
- c. Hazardous wastes generated at the facility include lead-based pipe thread compounds.
- d. Lead-based pipe thread compounds are hazardous wastes when discarded because leachate obtained during the Extraction Procedure ("EP") toxicity test set forth in 40 Code of Federal Regulations ("CFR") §261.24 contains lead in excess of specified concentrations.
- e. Hazardous wastes and non-hazardous wastes generated at the T & N facility were disposed of in an approximately 1.5 acre disposal facility pit at the T & N site.
- f. { The T & N disposal facility is not a permitted hazardous waste disposal facility and does not have interim status to operate as a hazardous waste disposal facility prior to the issuance or denial of a permit.
- g. The T & N hazardous waste disposal facility has no groundwater monitoring.
- h. T & N has not obtained financial assurance for closure and post-closure care of the hazardous waste disposal facility and has not obtained liability coverage for sudden and non-sudden occurrences at the disposal facility.
- i. T & N failed to maintain a written closure and post-closure plan for the disposal facility. On July 30, 1986, T & N submitted a closure plan for approval.

## Conclusions of Law

- a. T & N is the owner of a hazardous waste disposal facility and is therefore subject to the jurisdiction of the Texas Solid Waste Disposal Act, TEX. REV. CIV. STAT. ANN., article 4477-7 (Vernon 1986).
- b. T & N has violated 31 Texas Administrative Code ("TAC") §336.2 and §336.43 (formerly §335.2 and §335.43) by

operating an unpermitted hazardous waste disposal facility.

- c. T & N has violated 31 TAC §335.116 by failing to implement a groundwater monitoring program at the disposal facility.
  - d. T & N has violated 31 TAC §335.112(a)(6), adopting 40 CFR §§265.112(a) and (b) and 265.118(a), (b), (e) and (f) by reference, by failing to maintain a closure and post-closure plan for the disposal facility.
  - e. T & N has violated 31 TAC §335.112(a)(7), adopting 40 CFR Part 265, Subpart H by reference, by failing to demonstrate financial assurance for closure and post-closure care of the hazardous waste disposal facility.
2. T & N has filed an answer to the Executive Director's Petition and Preliminary Report.
  3. The parties have reached agreement regarding settlement of all matters in controversy between them.

#### Conclusions of Law

1. The Commission has jurisdiction to assess administrative penalties for the violations of statutes, rules and orders of the Commission under §8b of the Texas Solid Waste Disposal Act, TEX. REV. CIV. STAT. ANN., article 4477-7 (Vernon 1986).
2. The Commission finds that a total cumulative administrative penalty of Five Thousand Four Hundred Twenty Dollars (\$5,420) is appropriate based on violations by T & N and the factors set forth under §8b of the Texas Solid Waste Disposal Act.
3. The settlement agreement reached by the parties is consistent with the requirements of the Texas Solid Waste Disposal Act.

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS WATER COMMISSION that T & N Lone Star Warehouse Company shall pay an administrative penalty totaling Five Thousand Four Hundred Twenty Dollars (\$5,420) for violations of the Texas Solid Waste Disposal Act and the regulations of the Texas Water Commission. This penalty shall be received by the Commission on or before the 30th day commencing from the date of this Order. All checks rendered to pay penalties imposed by this Order shall be made out to the "State of Texas -- General Revenue Fund." All checks will be delivered to the Chief Fiscal Officer, Texas Water Commission, P. O. Box 13087, Capitol Station, Austin, Texas, 78711-3087, with the notation "Re: T & N Lone Star Warehouse Company Enforcement Order."

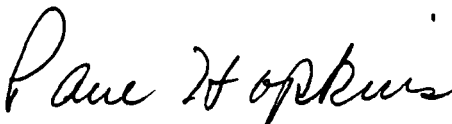
IT IS FURTHER ORDERED BY THE TEXAS WATER COMMISSION that T & N Lone Star Warehouse Company shall undertake those certain actions set forth as follows:

1. Within 30 days of the date of this Commission Order, T & N shall submit a revised closure plan for the hazardous waste disposal facility to the Executive Director for approval. The plan shall include a groundwater monitoring program and an implementation schedule.
2. Within 30 days of the date of approval by the Executive Director of the closure plan, T & N shall demonstrate financial assurance for closure of the hazardous waste disposal facility.
3. T & N shall implement the approved closure plan pursuant to the schedule contained in the plan.
4. If, upon completion of closure activities, T & N is not able to demonstrate that the closure performance standard contained in the approved closure plan has been met, and that hazardous waste constituents have not entered the groundwater below the facility, T & N shall comply with applicable requirements concerning groundwater monitoring, closure and post-closure, financial assurance and landfills, and shall also submit a completed application for a post-closure care permit for the disposal facility to the Commission. If the requirements in this provision apply, T & N shall accomplish these objectives within 180 days after completion of closure of the disposal facility.


The Chief Clerk of the Commission is directed to forward a certified copy of this Order to each party and to issue said Order and cause same to be recorded in the files of the Commission.

Signed this 13th day of August, 1986.

TEXAS WATER COMMISSION

  
Paul Hopkins, Chairman

  
Ralph Boring, Commissioner

  
Mary Ann Hefner, Chief Clerk

  
John O. Houchins, Commissioner

AGREED:

By:

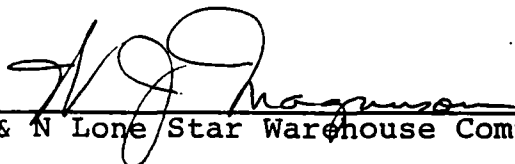


Larry R. Soward, Executive Director  
Texas Water Commission

Date:

8/13/86

By:



T & N Lone Star Warehouse Company

Date:

8/13/86

REF. 9

File

TWC Reg. No. 33373

TEXAS WATER COMMISSION  
Solid Waste Compliance Monitoring Inspection Report

## INSPECTION COVER SHEET

C.O. Use Only

MAY 04 1987

TWC District 5EPA ID No. [REDACTED]

COMMERCIAL WASTE FACILITY

NAME OF COMPANY [REDACTED]MAILING ADDRESS P.O. Box 300, Leno Star, Texas 75668Tel. 214-656-3461SITE LOCATION Hwy. 250 3 miles east of Leno Star, Texas

Tel. \_\_\_\_\_

COUNTY MaricopaTYPE OF INDUSTRY Pipe storageGENERATOR CLASSIFICATION: Industrial ☒ Municipal \_\_\_\_\_ GOVERNMENT FACILITY \_\_\_\_\_

Part A Application submitted to the State? Yes \_\_\_\_\_ No ☒  
 Affidavit of Exclusion submitted to the State? Yes \_\_\_\_\_ No ☒  
 Was a written exclusion granted by TWC? Yes \_\_\_\_\_ No ☒  
 Will this facility require a RCRA permit? Yes \_\_\_\_\_ No ☒

To EPA? Yes \_\_\_\_\_ No ☒

If yes, Date: \_\_\_\_\_

## CURRENT WASTE MANAGEMENT (Haz.-"H", Class I NonHaz.-"NH", Class II-"II", Class III-"III")

Generator H, NH, II Treatment \_\_\_\_\_ Storage H, NH Disposal H, NH, II Transporter \_\_\_\_\_HW Exemptions: 90-Day Storage ☒ Other \_\_\_\_\_

SQG \_\_\_\_\_: Total HW Generation Per Month: &lt;100 kg. \_\_\_\_\_ 100-1000 kg. \_\_\_\_\_

H W Facilities (circle facility codes): (C) T SI WP LT (LF) I TT TR WDW ON H Facilities (circle facility codes): (C) T SI WP LT (LF) I TT TR WDW O

Anomalies in the above information will be addressed by: (a) Enforcement in progress \_\_\_\_\_,  
 (b) Central Office \_\_\_\_\_, (c) District Office \_\_\_\_\_, (d) Owner/Operator ☒.

Type of Inspection (circle): (CEI) SQG CL CD SA OT FO SWInspector's Name and Title Kevin Phillips / EOS IIInspection Participants Tom Beasley, Steve Byrd - TWC, Mark Snyder - Leno Star SteelDate(s) of Inspection 3-30-87Approved: John H. Thompson  
District ManagerSigned: Kevin Phillips  
Inspector4-27-87  
Date

APR 29 1987



TEXAS WATER COMMISSION  
Solid Waste Inspection Report  
CONTENTS SHEET

TWC Reg. No. 33313

COMPANY NAME T.N. Lone Star Warehouse Co

- ☒ 1. Code Sheet (0814)
  - ☒ 2. Inspection Cover Sheet      ☐ 2b. Special Insp. Cover Sheet (HB.2358)
  - ☒ 3. Generators Checklist      ☐ 3b. Small Quantity Generator Checklist
  - ☒ 4. General Facilities Checklist
  - ☐ 5. Transporters Checklist
  - 6. Facility Component Checklists (codes)
    - ☒ a. Containers (C)
    - ☐ b. Tanks (T)
    - ☐ c. Surface Impoundments (SI)
    - ☐ d. Waste Piles (WP)
    - ☐ e. Land Treatment (LT)
    - ☒ f. Landfills (LF)
    - ☐ g. Incinerators (I)
    - ☐ h. Thermal Treatment (TT)
    - ☐ i. Chemical, Physical, or Biological Treatment (TR)
    - ☐ j. Other (O)
- 
- ☒ 7. Closure/Post-Closure Checklist      ☒ 7b. Closure-In-Progress Checklist
  - ☒ 8. Groundwater Monitoring Checklist Group
  - ☐ 9. Notice of Violation (NOV) Letter
  - ☒ 10. Interoffice Memorandum (IOM)
  - ☒ 11. Registration
  - ☒ 12. Maps, Plans, Sketches
  - ☐ 13. Photographs
  - ☐ 14. Sample COC Tags
  - ☒ 15. Other (describe) Water audit chart, Financial Test letter, Closure Plan Document, Manifest Closure Plan, Well boring logs

NOTE: If a required Checklist is omitted, explain: \_\_\_\_\_

## TWC Solid Waste Inspection Report

TWC Reg. No. 33373**GENERATORS CHECKLIST**Section A - NOTIFICATION and WASTE DETERMINATION

\*\*\*

1. Has generator completed an appropriate hazardous waste determination for each solid waste produced? YES ☐ NO ☒
2. Check the method used for determination:
- ☐ a. Listed as a hazardous waste in 40CFR Part 261, Subpart D.
  - ☐ b. Process or materials knowledge.
  - ☐ c. Tested for characteristics as identified in Part 261, Subpart C  
(If equivalent test method is used, attach a copy)

**NOTE:** If a hazardous determination has not been made or appears to be incorrect, the inspector should obtain a sample of the waste for analysis and explain in comments.

3. Has the facility received an EPA ID number? N/A ☐ YES ☒ NO ☐
4. Is notification of all waste streams generated correct? YES ☐ NO ☒
5. Is notification of all waste management (TSD) methods correct? YES ☒ NO ☐
6. Does facility generate, treat, store, or dispose of PCB wastes? YES ☐ NO ☒  
If yes, describe storage and disposition:

7. Does this facility generate used oils? YES ☒ NO ☐  
If yes, describe storage and disposition:

Heavy equipment oils, lubricative oils, and vehicle oils. These oils are stored at facility, 831 above ground tank.

8. Does this facility generate spent solvents? YES ☒ NO ☐  
If yes, describe storage and disposition:

Facility uses Sility Klean solvent and their services. Waste solvent is not stored before pickup by Sility Klean. There also has a solvent/hazardous waste which is stored at facility. There has been no disposal of this waste to date.

9. Does this facility utilize sumps in the management of hazardous waste? If yes, describe use: YES ☐ NO ☒

Section B - SPECIAL CONDITIONS

\*\*\*

1. If generator has received from or transported to a **foreign entity** any hazardous waste, has the appropriate notice been filed with the EPA Regional Administrator? N/A ☒ YES ☐ NO ☐
2. Was the waste manifested and signed by the foreign consignee? N/A ☒ YES ☐ NO ☐
3. Has confirmation of waste transport out of the country been received by the generator? N/A ☒ YES ☐ NO ☐

Section C - RECORDKEEPING and REPORTING (335.9\*, .10, .13, .70-71)

1. Does the generator maintain the following records and reports (if applicable) for the necessary three years?
  - a. Shipping Manifests N/A ☐ YES ☒ NO ☐
  - b. Monthly off-site shipment summaries N/A ☐ YES ☒ NO ☐
  - c. Monthly on-site land disposal summaries N/A ☒ YES ☐ NO ☐
  - d. Monthly waste receipt summaries N/A ☒ YES ☐ NO ☐
  - \*e. Company records of industrial solid waste T/S/D activities N/A ☐ YES ☐ NO ☒
  - \*f. Company records of municipal haz. waste T/S/D activities for generators of >100 kg/month, etc. N/A ☒ YES ☐ NO ☐
  - g. Tests and analyses of HW determinations N/A ☒ YES ☐ NO ☐
  - h. Annual reports N/A ☐ YES ☒ NO ☐
2. Has generator submitted **exception reports** to TWC for any original (white) copies of manifests not received back? N/A ☒ YES ☐ NO ☐
3. Have any **spills**, unauthorized discharges, or threats of such discharges occurred?  
If Yes:
  - a. Have they been reported? N/A ☒ YES ☐ NO ☐
  - b. Have they been remedied? (Explain) N/A ☒ YES ☐ NO ☐

+++ IF GENERATOR DISPOSES OF WASTES ON-SITE ONLY, WRITE N/A IN SECTION D+++

Section D - PRETRANSPORT and MANIFEST REQUIREMENTS

1. Identify primary off-site disposal facilities:

Safety-Kemco Facility, Minto, Tenn

2. Are off-site disposal facilities RCRA-permitted or operating under RCRA interim-status standards? N/A ☐ YES ☒ NO ☐
3. Are TWC manifests properly completed? N/A ☐ YES ☒ NO ☐

++++ STOP & SIGN HERE IF FACILITY QUALIFIES AS A SMALL QUANTITY GENERATOR +++++

Signed: \_\_\_\_\_

Section D - (Continued)

\*\*\*

4. Do containers used to hold waste meet DOT **packaging** requirements (49CFR Parts 173,178,179) before being offered for transport? (if observed) N/A ☒ YES ☐ NO ☐
5. Does generator **label** and **mark** each package in accordance with 49CFR Part 172? (if observed) N/A ☒ YES ☐ NO ☐
6. Is each container of 110 gallons or less **marked** with the required hazardous waste warning label? N/A ☒ YES ☐ NO ☐
7. Does generator **placard** off-site waste shipments in accordance with DOT regulations (49CFR Part 172, Subpart F)? (if observed) N/A ☒ YES ☐ NO ☐

Section E - ACCUMULATION TIME EXEMPTION

NOTE: A facility may accumulate and store hazardous wastes in containers or tanks for up to 90 days without a permit.

1. Is the beginning **date** of Accumulation Time clearly indicated on each container? N/A ☐ YES ☐ NO ☒
2. Is each container or tank clearly labeled or marked "Hazardous Waste"? N/A ☐ YES ☐ NO ☒

NOTE: Attach a Container Checklist for each container storage area.

NOTE: Attach a Tanks Checklist for each tank (or each group of similar tanks).

NOTE: If this is a TSD Facility, proceed to General Facilities Checklist.

TWC Reg. No. 33373

Checklist Exp. Corp. Sheet

COMMENTS SHEET

Section <sup>Mailbox</sup> Address 1 The company's registration should indicate P.O. BOX 300, not 187  
(TAC 335.6)

Section <sup>Contact</sup> Person 1 T-1 should indicate who the new contact person should be (TAC 335.6)  
George Hart listed on the 6-13-86 RCR is no longer with the company. T-1 said  
they would have to choose another contact person. T-1 was not sure on this inspection  
who this would be.

Section <sup>RCRA</sup> Permit 1 T-1 has submitted a closure plan for facility of (landfill)  
which was approved by the TWC on 12-5-86. A clean closure is planned for  
the landfill. Closure is dependent upon Lane Star Steel Co. and Retac Inc. obtaining  
a permit (HW-50057) to construct the new hazardous waste landfill.

Who is Retac Inc.?

Section 1

TWC Reg. No. 33373

Checklist Inspection

COMMENTS SHEET

Section A(1) TON should make a hazardous waste determination on heavy equipment oils, locomotive oils, and vehicle oils. E.P. toxicity to metals and ignitability are needed. (TAC 335.62)

Section A(4) If the oils test hazardous or class II then TON will have to enter these new wastes to the NER. If class I is determined then the waste oils are already listed on the NER.

Section C(1)(a) TON should begin keeping records of all hazardous waste kept in storage at the container storage area (Facility 04). Waste stored here is a solvent/thinners like mixture. Thirteen (13) drums were in storage on this inspection. (TAC 335.8)

Section E(1) The beginning date of accumulation was not on the 55 gallon metal drums at area 04. (TAC 335.69(a)(2))

(2) Each container was not labeled "Hazardous Waste". (TAC 335.69(a)(3))

TWC Solid Waste Inspection Report

TWC Reg. No. 33323

**GENERAL FACILITIES CHECKLIST**

Section A - GENERAL SITE INFORMATION

1. Are any solid waste facilities located in the 100-year floodplain? NO ☒ YES ☐ \*\*\*
2. Describe land use within one mile Rural, Industrial, Iron Ore Mining (in part)
3. Are there any closed or abandoned solid waste facilities? NO ☒ YES ☐
4. Has proof of deed recordation of all solid waste Land Disposal facilities been provided to TWC? N/A ☐ YES ☒ NO ☐
5. ~~Is there any evidence of fires and explosions or leaks and discharges to the environment from solid waste facilities or any other type of facility?~~ NO ☐ YES ☒

NOTE: Attach Plant Map showing site orientation, waste management facilities, and major topographic features (See attachment: A, B, & C)

+++ STOP & SIGN HERE IF THE REST OF THIS CHECKLIST IS NOT APPLICABLE +++

Signed: \_\_\_\_\_

Section B - PERSONNEL TRAINING *Program started April 24, 1986*

1. Does the owner/operator maintain a personnel training program? N/A ☐ YES ☒ NO ☐
2. Is the program directed by a person trained in hazardous waste management procedures? N/A ☐ YES ☒ NO ☐
3. Is the program designed to prepare employees to respond effectively to hazardous waste emergencies? N/A ☐ YES ☒ NO ☐
4. Is a training review given annually? *Started April 24, 1986* N/A ☒ YES ☐ NO ☐
5. Does the owner/operator keep the following records at the facility:
- a. Job title and written job description of each position? N/A ☐ YES ☐ NO ☒
- b. Description of the type and amount of training? N/A ☐ YES ☐ NO ☒

\*\*\* An entry in this column indicates explanation/response is needed.

Section C - PREPAREDNESS and PREVENTION

1. Is the facility equipped with: \*\*\*
- |   |   |  |
|---|---|--|
| a. Internal communication or alarm system within easy access  | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |
| b. Communication system to call off-site emergency assistance | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |
| c. Fire, spill control, and decontamination equipment         | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/> |
| d. Adequate fire-water supply (volume and pressure)           | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |
2. Is the above-noted emergency equipment regularly tested? (See Comment) YES ☐ NO ☒
3. Is aisle space sufficient to allow unobstructed movement of personnel and equipment? YES ☒ NO ☐
4. Has the owner/operator attempted to familiarize local response authorities with: facility layout, entrances and evacuation routes, hazardous waste properties and hazards, and the work location of facility personnel? N/A ☐ YES ☒ NO ☐
5. Has a primary authority been designated in case more than one law enforcement or fire department responds? N/A ☐ YES ☒ NO ☐
6. Has the owner/operator attempted to reach agreements with: State emergency response teams, emergency response contractors, and equipment suppliers? N/A ☐ YES ☒ NO ☐
7. Has the owner/operator attempted to make arrangements with local hospitals to familiarize them with the hazardous wastes handled and the injuries that could result from: fires, explosions, or releases from the facility? N/A ☐ YES ☒ NO ☐
8. If State or local authorities declined to enter into the above-noted agreements, was this documented? N/A ☒ YES ☐ NO ☐

Section D - CONTINGENCY PLAN and EMERGENCY PROCEDURES

1. Is a contingency plan to minimize dangers of accidental releases from hazardous waste facilities maintained at the facility? YES ☐ NO ☒
2. Does the contingency plan contain:
- |   |   |   |
|---|---|---|
| a. Actions to be taken in response to emergencies                   | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/>                              |
| b. Description of agreements with police, fire & hospital officials | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/>                              |
| c. Names, addresses & phone numbers of emergency coordinators       | N/A <input type="checkbox"/>            | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| d. List, description & location of emergency equipment              | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/>                              |
| e. Evacuation plans, if necessary                                   | N/A <input checked="" type="checkbox"/> | YES <input type="checkbox"/> NO <input type="checkbox"/>            |
3. Have copies of the contingency plan been provided to: local police and fire departments, hospitals, and State and local emergency response teams? N/A ☐ YES ☐ NO ☒

+++ STOP & SIGN HERE IF FACILITY QUALIFIES FOR THE 90-DAY STORAGE EXEMPTION +++

Signed: \_\_\_\_\_



Section E - WASTE ANALYSIS

- \*\*\*
1. Is a **written waste analysis plan** maintained at the facility? YES ☐ NO ☒
2. Does the plan include the following:
- a. Detailed physical and chemical analysis of all haz. wastes YES ☐ NO ☐
- b. Rationale for selection of analytical parameters YES ☐ NO ☐
- c. Analytical test methods used YES ☐ NO ☐
- d. Sampling methods used to obtain representative waste samples YES ☐ NO ☐
- e. Frequency the initial analysis will be reviewed or repeated (including re-testing when waste streams change) YES ☐ NO ☐
- f. Waste analyses that generators have agreed to provide (applies to facilities receiving wastes from off-site) N/A ☐ YES ☐ NO ☒
3. For facilities receiving wastes from off-site:
- Is each incoming waste shipment **inspected and**, if necessary, **analyzed** to check it against the manifest? N/A ☒ YES ☐ NO ☐

Section F - SECURITY

1. Does the facility provide adequate security to minimize the possibility of unauthorized entry by persons or livestock? YES ☐ NO ☒
2. Is security of the active portion of the facility provided through:
- (circle)
- a. 24 Hr surveillance *Guards at entrance to TON facility*
- OR
- b. Perimeter barriers and means to control entry *Barbed wire around TON facility and chain link fence with barbed wire at facility C* YES ☒ NO ☐
3. Is a sign with the legend "Danger-Unauthorized Personnel Keep Out" (or an equivalent legend) posted at all entrances and approaches to active portions of the facility? YES ☐ NO ☒
4. Is the sign legible from at least 25 feet? YES ☐ NO ☒

**NOTE:** The sign must also be written in Spanish in counties bordering the Republic of Mexico.

**Section G - GENERAL INSPECTION REQUIREMENTS**

\*\*\*

1. Is a **written inspection schedule** maintained at the facility? N/A ☐ YES ☒ NO ☐

2. Does the schedule provide for inspection of the following:

a. Monitoring equipment	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
b. Safety and emergency equipment	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
c. Security devices	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
d. Operating and structural equipment	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

3. Does the schedule identify the following **types of problems** to be looked for during the inspection:

a. Malfunction and deterioration	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
b. Operator error	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
c. Discharge or threat of discharge	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

4. Does owner/operator maintain **inspection logs** which include:

a. Date and time of inspection	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
b. Name of inspector	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
c. Notation of observation	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
d. Date and nature of repairs and remedial action	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

5. Have malfunctions or other deficiencies *(Program just started no deficiencies)* noted in the inspection log been corrected? *or malfunction noted* N/A ☒ YES ☐ NO ☐

6. Are inspection log records maintained for three years? YES ☒ NO ☐

**Section H - SPECIAL REQUIREMENTS**

1. Does the owner/operator take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes? N/A ☐ YES ☒ NO ☐

2. Are smoking and open flame confined to designated areas? N/A ☐ YES ☒ NO ☐

3. Are "No Smoking" signs posted in areas with ignitable or reactive wastes? N/A ☐ YES ☐ NO ☒

Section I - MANIFEST SYSTEM, RECORDKEEPING and REPORTING

\*\*\*

1. Does owner/operator comply with manifesting requirements? N/A ☐ YES ☒ NO ☐
2. For wastes received from off-site:
- a. Is waste that is transported by rail or water accompanied by properly executed shipping papers? N/A ☒ YES ☐ NO ☐
- b. Have all shipments been consistent with the manifests? N/A ☒ YES ☐ NO ☐
- c. Are unmanifested wastes reported to TWC? N/A ☒ YES ☐ NO ☐
- d. Have manifest discrepancies been reconciled with the generator and transporter? N/A ☒ YES ☐ NO ☐

Section J OPERATING RECORD

1. Is a written operating record maintained at the facility? N/A ☐ YES ☒ NO ☐
2. Does the operating record reflects the following:
- a. Description and quantity of each hazardous waste received and the method and date of treatment, storage or disposal at the facility. N/A ☒ YES ☐ NO ☐
- b. Location & quantity of each haz. waste in the facility. N/A ☐ YES ☐ NO ☒
- c. Records and results of waste analyses and trial tests. N/A ☒ YES ☐ NO ☐
- d. Summary reports of all incidents requiring implementation of the Emergency Contingency Plan. N/A ☒ YES ☐ NO ☐
- e. Closure Cost estimates for all facilities. N/A ☐ YES ☒ NO ☐
- f. Post-Closure cost estimates for all disposal facilities N/A ☒ YES ☐ NO ☐

Section K - FINANCIAL ASSURANCE

1. Did preinspection call to Central Office confirm that the facility has submitted current financial assurance documentation? N/A ☐ YES ☒ NO ☐

2. If Yes, indicate the documents submitted and their respective values:

☐ Sudden Liability- Amount: \$ \_\_\_\_\_ per occurrence, \$ \_\_\_\_\_ annual

☐ Non-sudden Liability- Amount: \$ \_\_\_\_\_ per occurrence, \$ \_\_\_\_\_ annual

☒ Closure Assurance- Amount: \$ 123,000

☐ Post-Closure Assurance- Amount: \$ \_\_\_\_\_

☐ Corrective Action- Amount: \$ \_\_\_\_\_

3. Did Financial Assurance Officer report that documentation is adequate?

Telephone call to Sonix, Ralls 4:23 PM (reclude) requested investigate financial assurance N/A ☐ YES ☐ NO ☒  
rf

TWC Reg. No. 33373

Checklist Facilities

COMMENTS SHEET

Section A(5)1 During this inspection, it was noted that the fence was removed from the southeast end of the hazardous landfill (Facility 01). It was also noted that the southeast end of the landfill area had been excavated, by trenching out the dikes, to allow ponding water which surfaces in the landfill to discharge. TON is currently monitoring dissolved lead concentration each month (one/month) but surface water discharge from the landfill area, as agreed in the closure plan.

Section B(5)1 TON has provided personnel training and has an outline of courses to train employees but has not documented the type and amount of training. (TAC 335.112/40 CFR 265.16(i)(3))  
Job titles and a written job description are needed for each position. (TAC 335.112/40 CFR 265.16(i)(2))

Section C(1)(c)1 Facility 04 (Container Storage Area) did not have fire extinguishes in the area. Waste stored here are ignitable. (TAC 335.112/40 CFR 265.32(c))

Section C(2)1 See comment C(1)(c), above. No fire extinguishes in area yet.

TWC Reg. No. 33373

Checklist Facility

COMMENTS SHEET

Section D 1 TON does not have a contingency plan. TON tried to use Lone Star Steel's contingency plan as its own. TON should have a contingency plan for this facility (TON) (TAL 335.112/40 CFR 265.50)

Section E 1 A written waste spillage plan is needed for this facility (TAL 335.112/40 CFR 265.13)

Section F(2)(1) See comment A (5). TON also has contractors working at the warehouse (TON) - With the southeast fence being down and roads leading to the landfill (C1), it does not provide minimal possibility of unauthorized entry. (TAL 335.112/40 CFR 265.14(a))

Section F(3)(4) The hazardous landfill (Facility C1) did not have signs posted with the legend "Danger - Unauthorized Personnel Keep Out". (TAL 335.112/40 CFR 265.14(c)). The facility had sign stating "Authorized Personnel Only" but did not alert personnel entering the area that danger was possible.

Signs were legible but not worded correctly.

TWC Reg. No. 33323

Checklist Fac. 1, 4, 11

COMMENTS SHEET

Section G(2)(b) TON will have to modify its general inspection schedule to include inspection of fire extinguishers to be installed at facility 04 (Container Storage Area)  
(TAC 335.112/40 CFR 265.15 (b)(1))

Section G(4)(a) Inspection logs should include the date and time of inspection.  
(TAC 335.112/40 CFR 265.15 (d))

Section H(3) 1 "No Smoking" signs are needed at facility 04. (TAC 335.112/40 CFR 265.17(a))

Section J 1(2)(b) Failure to maintain a written operating record for facility 01 and 04.  
(TAC 335.112/40 CFR 265.73(c)(2))

Section K 1 TON does not have sudden and non-sudden liability for the facility (Facility 01). According to Senior Roll, Financial Officer, TWC, TON submitted a letter of credit for closure of 8/23/00.  
(TAC 335.112/40 CFR 265 Subpart H)

TWC Solid Waste Inspection Report

CONTAINER STORAGE AREA CHECKLIST

TWC Reg. No. 33373

Reg. Facility No. 04

*Act 1*  
Class of Wastes ( H )

- \*\*\*
1. Are containers in good condition? YES ☒ NO ☐
  2. Are the containers compatible with the wastes being stored? YES ☒ NO ☐
  3. Are containers kept closed and stored in a safe manner? YES ☒ NO ☐
  4. Are containers inspected weekly for leakage and deterioration? YES ☐ NO ☒
  5. Are containers holding **ignitable** or **reactive wastes** kept at least 15 meters (50 ft) from the facility's property line? N/A ☐ YES ☒ NO ☐
  6. Are containers holding **incompatible wastes** separated by a physical barrier or sufficient distance? N/A ☒ YES ☐ NO ☐
  7. Does the storage area have containment protection? YES ☒ NO ☐

8. Describe the Container Storage Area using comments and/or photos:

Containers are stored under a metal building on wooden pallets

Containers stored in this area have not been inspected on any frequency (TAC 335.111/40 (FR 265-174

\*\*\* An entry in this column indicates explanation/response is needed.

TWC Solid Waste Inspection Report

LANDFILLS CHECKLIST

TWC Reg. No. 33313

Reg. Facility No. 01

Inactive

Class of Wastes( H )

Type of Wastes: Lube wastes, thread/lube compounds, solvents

Type of Liner: Native Soil

Is there a Leachate collection and removal system? Yes ☐ No ☒

A. GENERAL OPERATING REQUIREMENTS

\*\*\*

1. Does the active part of landfill have an adequate **run-on** control system? YES ☒ NO ☐

2. Does the landfill have an adequate **run-off** management system? (See Comment) YES ☒ NO ☐

a. Is the run-off analyzed to determine if it is hazardous? YES ☒ NO ☐

b. If it is hazardous, how is it managed? \_\_\_\_\_

c. Is collected run-off discharged to surface waters? YES ☐ NO ☒

(1). If Yes, list TWC-WQ and EPA-NPDES Permit No(s): \_\_\_\_\_

3. Is the landfill managed so that **wind dispersal** is controlled? YES ☒ NO ☐

B. SURVEYING AND RECORD KEEPING

1. Is the following information maintained in the **operating record**:

a. On a map, the exact location, dimensions, and depth of each cell with respect to surveyed bench marks? YES ☒ NO ☐

b. The contents of each cell and approximate location of each haz. waste type within each cell? YES ☒ NO ☐

C. SPECIAL REQUIREMENTS

1. If **ignitable** or **reactive** waste are placed in the landfill:

a. Are they rendered non-ignitable or non-reactive before or immediately after placement in the landfill? N/A ☐ YES ☒ NO ☐

b. Describe or attach copy of treatment: \_\_\_\_\_

2. If **incompatible wastes** are placed in the same landfill:

Are they handled so as to prevent violent reactions, toxic or flammable gases, damage to the facility, or threat to humans or the environment? N/A ☒ YES ☐ NO ☐

\*\*\* An entry in this column indicates explanation/response is needed.



3. If **free liquid wastes** (non-containerized) are placed in the landfill:

\*\*\*

Are the wastes treated so that no free liquids are present? N/A ☒ YES ☐ NO ☐

4. If a **container holding free liquid** is placed in the landfill:

Does facility comply with requirements of 40CFR 265.314(b)? N/A ☒ YES ☐ NO ☐  
(i.e.: Liquid is absorbed or solidified; container is very small;  
container is a battery, capacitor, etc.; container is a lab pack)

5. If **empty containers** are placed in the landfill:

Are they crushed or shredded prior to burial? N/A ☐ YES ☒ NO ☐

D. FOR CLOSED LANDFILLS OR LANDFILL CELLS

1. Is there evidence of **site instability** (settling, erosion, etc.)? NO ☒ YES ☐

2. Is there evidence of improper maintenance or inadequate drainage? NO ☒ YES ☐

E. GROUNDWATER MONITORING

1. Does the landfill have a RCRA groundwater monitoring system? N/A ☐ YES ☒ NO ☐

(Use GWM checklist if applicable)

M.W. no's  
TW-1, TW-2, TW-3, & TW-4

F. HSWA REQUIREMENTS

1. Is the landfill a "**new unit**"\*, August 1985 date of last waste placed into landfill (C1),  
a replacement of an existing unit,  
or a lateral expansion of an existing unit? YES ☒ NO ☐

If Yes:

a. Has landfill received haz. wastes since May 1985? N/A ☐ YES ☒ NO ☐

b. Does landfill have two or more liners and a leachate  
collection system above and between such liners? N/A ☐ YES ☐ NO ☒

Comments: 1.5 acre fill area. The fenced area is approximately 30 acres.

A closure plan has been submitted and approved for this facility.

A(2) / Facility C1 has a spring which surfaces within the landfill near the south end (see attachment "B")  
TOW has been sampling run-off from the landfill for dissolved lead (underneath) so much that the  
landfill discharges. This sampling is required by the closure plan.

\* A landfill that first received hazardous wastes after Nov. 8, 1984.

TWC Solid Waste Inspection Report

CLOSURE-in-PROGRESS CHECKLIST

TWC Reg. No. 33373

Reg. Facility No. 01  
Inactive

Type of facility component: Landfill

1. Is the facility component being closed a RCRA unit? YES ☒ NO ☐
2. Type of closure: Full-Facility Closure ☒ Partial Closure ☐ \*\*\*
3. Has closure plan received TWC approval or final modification? N/A ☐ YES ☒ NO ☐  
Date of approval: 12-5-86
4. Is this the last on-site facility to be closed which requires RCRA groundwater monitoring? N/A ☐ YES ☒ NO ☐
5. Has an approved public notice of closure been published? N/A ☐ YES ☒ NO ☐  
Date published: 10-15-86
6. Is a public hearing required? YES ☐ NO ☒  
Date of hearing: \_\_\_\_\_
7. Has on-site closure work started? YES ☒ NO ☐  
Date work initiated: August 13 Groundwater installed, some pre-closure GWM has occurred.
8. Is closure work proceeding according to the work schedule in the approved closure plan? N/A ☐ YES ☒ NO ☐
9. Have 180 days elapsed since TWC approval of the closure plan? N/A ☐ YES ☒ NO ☐  
a. If Yes,  
Has TWC approved an extension period? N/A ☐ YES ☒ NO ☐
10. Was District Office notified of sampling event when complete removal (clean closure) of a Land Disposal facility was to have been accomplished? N/A ☒ YES ☐ NO ☐
11. Were TWC samples taken to verify completion of closure? YES ☐ NO ☐ N/A.

NOTE: List chain-of-custody sample tag numbers in comments.

12. Is the closure work completed? YES ☐ NO ☒  
Date of completion: \_\_\_\_\_
13. Has the closure certification been submitted to TWC? N/A ☒ YES ☐ NO ☐  
Attach copy or explain. Date of certification: \_\_\_\_\_

\*\*\* An entry in this column indicates explanation/response is needed.

## TWC Solid Waste Inspection Report

TWC Reg. No. 33323CLOSURE & POST-CLOSURE CHECKLIST10.16.11(CY)TWC-10Section A - CLOSURE PLAN - Approved by TWC on 12-5-86

1. Circle hazardous waste facilities subject to RCRA CLOSURE:

CLOSURE: C T SI WP LT (LP) I TT TR WDW O

\*\*\*

2. Does the facility have a written closure plan? YES ☒ NO ☐3. Does the closure plan address all hazardous waste facilities? YES ☒ NO ☐

4. Does the closure plan include:

a. A description of how and when the facility will be:

(1) Partially Closed-

N/A ☒YES ☐ NO ☐

(2) Finally Closed-

YES ☒ NO ☐b. An up-to-date estimate of the maximum inventory of wastes in storage and treatment at any time during the life of the facility?YES ☐ NO ☒

c. An estimate of the expected year of closure?

YES ☒ NO ☐Year: See comment

5. Does the plan include a schedule for final closure?

YES ☒ NO ☐

Does the schedule include:

a. Time estimates

for each phase of closure for each area?

YES ☒ NO ☐

b. Total time estimate for closure?

YES ☒ NO ☐

6. Are the following Steps to Close included in the plan:

a. Removal of wastes

N/A ☐ YES ☒ NO ☐

b. Treatment of wastes

N/A ☒ YES ☐ NO ☐

c. Disposal of wastes

N/A ☐ YES ☒ NO ☐

d. Cap or final cover

N/A ☐ YES ☒ NO ☐

e. Decontamination

of equipment &amp; structures

YES ☒ NO ☐

f. Closure certification

YES ☒ NO ☐

7. Has the closure plan been amended as necessary

to reflect changes in facility operations or design?

N/A ☐ YES ☒ NO ☐

\*\*\* An entry in this column indicates explanation/response is needed.

Section B - POST-CLOSURE PLAN

Circle hazardous waste facilities subject to RCRA POST-CLOSURE.

POST-CLOSURE:    SI    WP    LT    LP    O

\*\*\*

1. Does the facility have a **written post-closure plan**?    N/A ☐    YES ☐    NO ☐    N
2. Does the plan address all RCRA Land Disposal facilities?    YES ☐    NO ☐
3. Does the plan provide for 30 years of post-closure care?    YES ☐    NO ☐
4. Does the post-closure plan include:
- a. A description of planned **groundwater monitoring** activities and frequencies?    YES ☐    NO ☐
  - b. A description of planned **maintenance activities** and frequencies to ensure the following:
    - (1) Integrity final cover or other containment . . . . . YES ☐    NO ☐
    - (2) Proper functioning of groundwater monitoring equipment . . . . . YES ☐    NO ☐
    - (3) Proper functioning of leachate collection equipment . . . . . N/A ☐    YES ☐    NO ☐
    - (4) Proper functioning of gas collection equipment . . . . . N/A ☐    YES ☐    NO ☐
  - c. Name, address and phone number of facility **contact person** for the post-closure period?    YES ☐    NO ☐
  - d. Requirement for notice to local **land authority**?    YES ☐    NO ☐
  - e. Requirement for notice in deed to **property** of haz. waste disposal and future land use restrictions?    YES ☐    NO ☐
5. Has the plan been **amended as necessary** during the operating life of the facility to reflect changes in operation or design?    N/A ☐    YES ☐    NO ☐
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Section C - CLOSURE and Post-CLOSURE COST ESTIMATES

CLOSURE COSTS:

\*\*\*

1. Is there a written closure cost estimate?

YES ☒ NO ☐

\$ 123,000

2. Is the closure cost estimate adequate and modified as necessary?

YES ☒ NO ☐

POST-CLOSURE COSTS:

3. Is there a written post-closure cost estimate?

N/A ☒ YES ☐ NO ☐

\$ \_\_\_\_\_

4. Is the annual estimate multiplied by 30  
to cover the entire post-closure care period?

N/A ☒ YES ☐ NO ☐

5. Is the post-closure cost estimate adequate and modified as necessary?  
(Incl. labor, notification & deed recordation)

N/A ☒ YES ☐ NO ☐

COMMENTS:

Ten's closure plan was approved 12-5-86 by TWC. The plan was approved  
with modifications (See attachment "D").

TWC Reg. No. 33323

Checklist Closure of Site

COMMENTS SHEET

Section A(4)(b)1 The closure plan fails to estimate the amount of wastes stored in facility 01 before it was deemed inactive. (TAC 335.112/40 (FC 265.112 (c)(2))

Section A(4)(c)1 As noted in the 12-5-86 notified closure plan, closure allows 27 months from TWC issuance of permit for Lor Star Steel Co and Peter Inc. landfill (Permit No. 140-50087). (See Attachment "D")

Section 1

Section 1

## TWC Solid Waste Inspection Report

**GROUND WATER MONITORING CHECKLISTS**

## 1. GROUND WATER MONITORING STATUS:

Complete the table for each Waste Management Area (WMA):

WMA	Description	Activity Status	Monitoring Status	Number of Wells
1	Landfill (Facility 01)	Inactive	1st yr	U 1 D 3
2				U D
3				U D
4				U D

Give date of approval for waivers, alternate plan, or assessment plan, as applicable: Alternate Plan 12-5-86

2. Provide a diagram locating each monitoring well and waste site(s). (See Attachments)  
List depths, diameter and completion data on each well not included A, B, C, & G on the previous inspection report.

3. Has the following been installed in the uppermost aquifer around each Waste Management Area:

a. At least **one** hydraulically **upgradient** well?YES ☐ NO ☒ \*\*\*b. At least **three** hydraulically **downgradient** wells?YES ☐ NO ☒c. Indicate WMA(s) that are not compliant: See comment [3(A+B) + 7]

d. Describe possible problems on Comments Sheet.

4. If the WMA includes multiple waste management facilities, is each facility adequately monitored?

N/A ☒ YES ☐ NO ☐

5. Does the facility have a **GW Sampling and Analysis Plan**?

YES ☒ NO ☐

Does it adequately address:

a. Sample collection procedures

YES ☒ NO ☐

b. Sample preservation and shipment

YES ☒ NO ☐

c. Analytical procedures

YES ☒ NO ☐

d. Chain of custody procedures

YES ☒ NO ☐

6. Does the facility have an adequate **GW Quality Assessment Plan Outline**?

YES ☒ NO ☐

7. If the company is performing an alternate groundwater monitoring program or a partial waiver monitoring program, is an approved Sampling and Analysis Plan followed?

N/A ☐ YES ☐ NO ☒

**NOTE:** Complete the "GW Sampling Procedures Checklist", when observing well sampling procedures or co-sampling monitor wells at the facility.

8. Have records been kept of:

\*\*\*

- a. Analyses for ground water parameters? YES ☒ NO ☐
- b. Calculations of means and variances? *(Not required until waste is removed)* YES ☐ NO ☒ *N.A.*
- c. Water surface elevations taken at each well sampling event? YES ☒ NO ☐
- d. Calculations of significant differences? *See 8(b)* N/A ☒ YES ☐ NO ☐
- e. Analyses of duplicate samples *(only well water elevation lower)* for contamination confirmation? *have been done* N/A ☒ YES ☐ NO ☐
- f. Analyses of samples taken as a result of implementing the Ground Water Quality Assessment Plan? N/A ☒ YES ☐ NO ☐
- g. Results of Ground Water Quality Assessment Plan? N/A ☒ YES ☐ NO ☐
- (1). Rates of Migration? YES ☐ NO ☐
- (2). Concentration of hazardous waste and/or constituents thereof? YES ☐ NO ☐
- (3). Analyses of quarterly ground water samples? YES ☐ NO ☐
- h. Copies of the annual reports *(Well sampling not performed yet)* of the groundwater monitoring program? YES ☐ NO ☒ *N.A.*

9. Are self-reporting data being submitted *(See comment)* on the appropriate TWC forms?

YES ☐ NO ☒ *N.A.*

+NOTE: Complete remaining checklists as applicable to each Waste Management Area+

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**FIRST YEAR BACKGROUND SAMPLING**Waste Management Area(s) One (1)

1. Are all samples analyzed for:

\*\*\*

a. EPA Drinking Water Standards?

YES ☐ NO ☒

b. Ground water quality parameters?

YES ☐ NO ☒

c. Contamination indicator parameters?

YES ☐ NO ☒2. Are 4 replicate measurements of **contamination indicator parameters** made for each well sample?YES ☐ NO ☒3. Are ground water **surface elevations** determined at each well sampling event?YES ☒ NO ☐4. Briefly explain why facility is performing first-year sampling at this time:

TEN installed the four (4) monitoring wells around the hazardous waste  
landfill (Facility 01) in August 1986. This facility is awaiting closure  
based on Ken Sta Steel Co. and later Inc. obtaining a permit for the hazardous  
landfill.

TWC Reg. No. 33323

Checklist FWP

COMMENTS SHEET

Section 1 TON installed four (4) ground water monitoring wells (MW) during the week of August 11-13, 1986. These wells are referred to as TN-1, TN-2, TN-3, & TN-4. The four (4) monitoring wells were installed via the Agreed Order (8-13-86) between TON and the TWC. The agreed order also asked for the submitted at a closure plan for the landfill (CI) and financial assurance.

Section 3(a+b) TON to date has performed monthly monitoring well water level elevations on TN-1, TN-2, TN-3, TN-4, and the free standing water level in the landfill. TON has also performed pH, specific conductivity, and dissolved lead testing of run-off from the landfill (seepage), on months that water discharges. Although, TON has performed monthly water elevations, they have not designated which well is up gradient or which well is down gradient. These wells were monitored (water elevations) for the first time in December 1986. (TAC 335.112, 40 CFR 265.91)

Section 7 TON has not performed ground water sampling of monitoring wells no. TN-1, TN-2, TN-3, and TN-4 as stated by 3.2, page 3-3, of the approved closure plan (12-5-86). (See attachment "D"). TON has only performed water well elevations on the four (4) monitoring wells. The plan has been approved, but not followed. (TAC 335.116(a))

Section 8 See comment #7, above. See comment 1, next page.

Section 9 See attachment "D". Data will be submitted on TWC forms after water received and quarterly sampling starts. No monitoring well sampling has taken place to date.

TWC Reg. No. 33373

Checklist First Visit

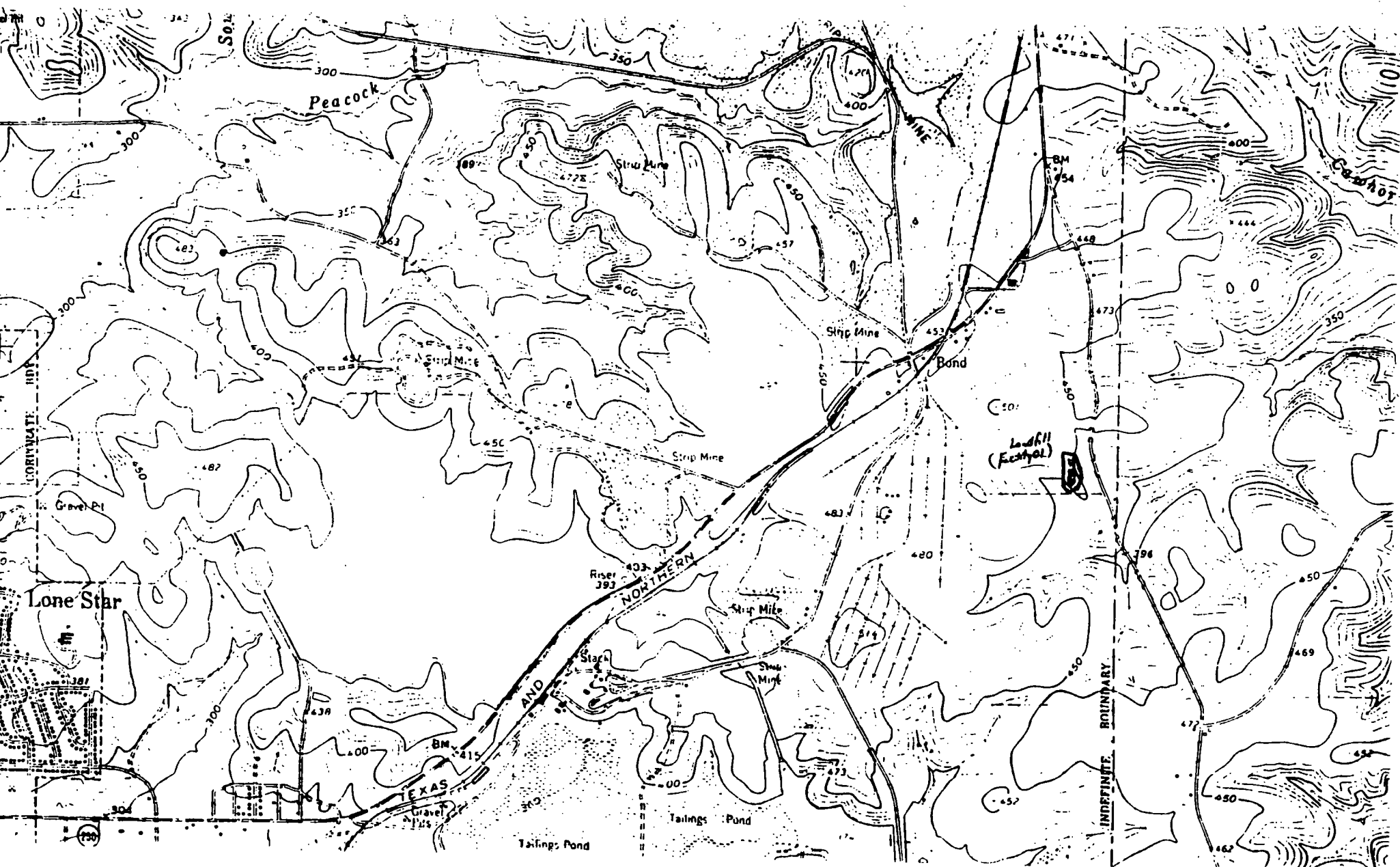
COMMENTS SHEET

Section 1 1 Although, TON's sampling plan was approved in the closure plan, TON has not followed the ground water monitoring plan they submitted for the four (4) monitoring wells (See comment 7 on the previous page). This is of concern that TON has no plan to monitor the four (4) monitoring wells before or after waste excavation of the landfill for EPA drinking water standards, ground water quality parameters, contaminating parameters, and the up-gradient/down-gradient designations have not been made on the wells. TON has taken five (5) months to develop ground water wells which seem inordinately long (See Attachment "M"). It has been noted that TON disposed of thousands of waste containing leachate and solids in the landfill. During this inspection samples were taken from

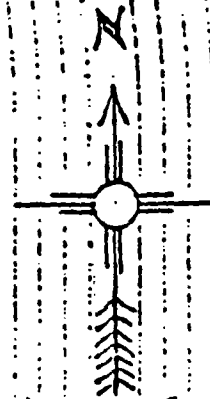
Section 1 monitoring wells no. TW-3 and TW-4 (See Attachment "B" for well locations). Sample HPM 10546 (Pb, Cd, Cu, Zn) and SW 10800 (acid + base metals, (24)) were taken from TW-3 while sample HPM 10547 (Pb, Cd, Cu, Zn) and SW 10879 (acid + base metals, (24)) were taken from TW-4.

Section 2 1 TON's closure plan stated replicates would not be performed during the initial sampling program; however, the modified closure plan amendments (See Attachment "O") after waste removal does call for replicates and statistics.

Section 1



NW Corner  
J. BIRD SURVEY, A-7



SCALE: 1" = 100'

# PLAT SHOWING

FENCED-IN DUMP  
JNO. BIRD SURVEY, A-7  
MORRIS COUNTY, TEXAS

## LEGEND

PRESUMED ---  
ESTIMATED ---  
POND ELEVATION  
CONTOUR INTERVAL 2 FT.

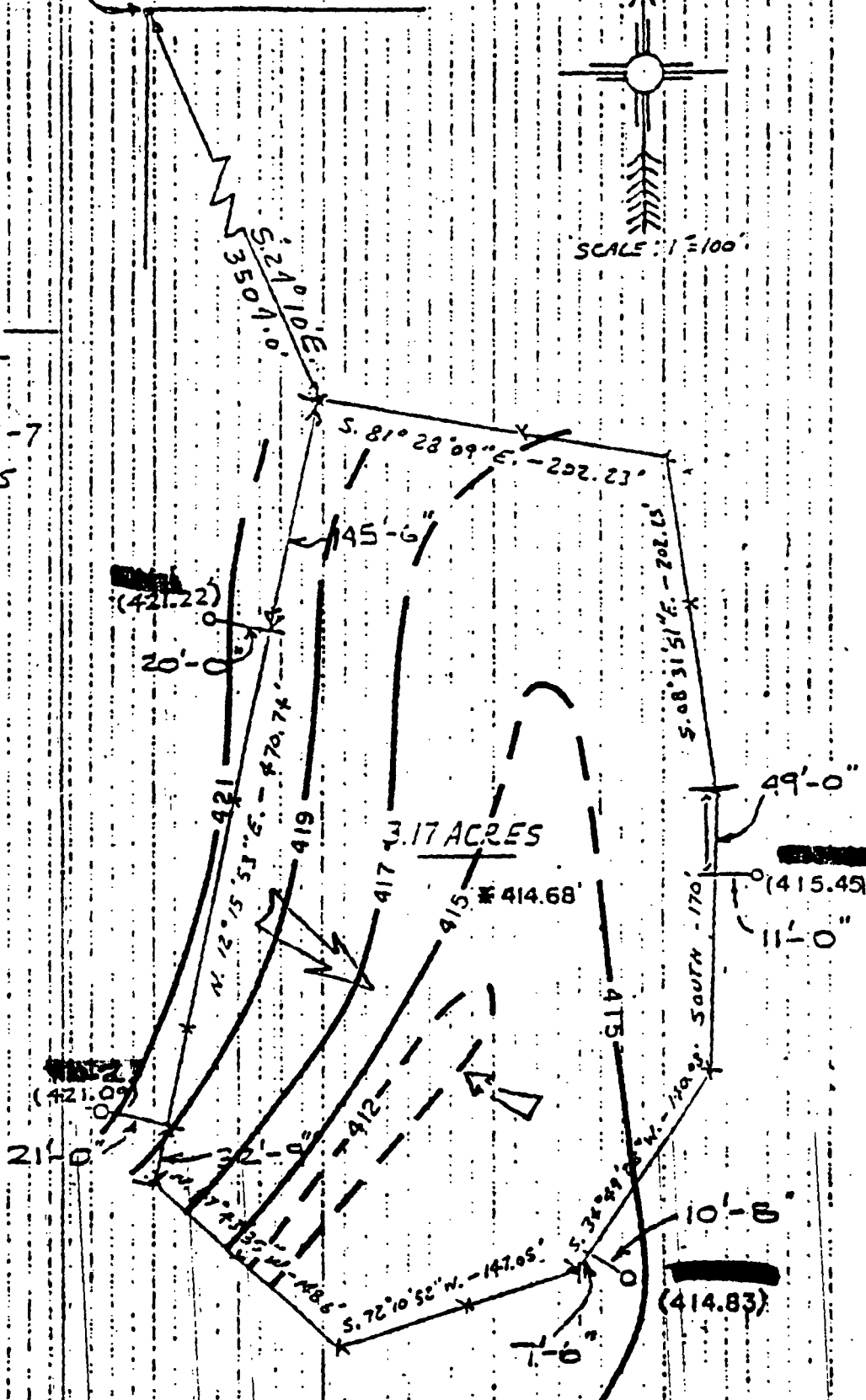
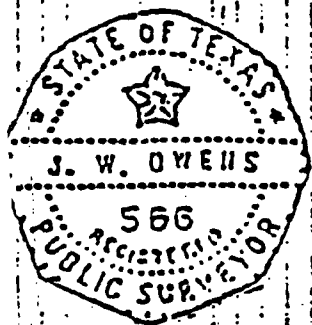


TABLE 1

Summary of Well Construction Details  
and Initial Water Level Data

	Well			
	TN-1	TN-2	TN-3	TN-4
Top of casing (TOC)	435.94	436.16	430.66	431.91
Ground elevation	433.11	433.29	427.69	429.21
Bottom of well	410.3	403.6	403.1	400.2
Screened interval	413-418	406.6-416.6	406.1-411.1	403.2-413.2
Depth to water (from TOC) on 8/22/86	14.72	15.07	15.83	16.46
Water elevation 8/22/86	421.22	421.09	414.83	415.45
Elevation of on-site spring-fed pond			414.68	
Reference Benchmark			437.71	

All measurements in feet. All elevations in feet, msl.

Attachment "D" Reg. No. 33373  
**TEXAS WATER COMMISSION**

Paul Hopkins, Chairman  
Ralph Roming, Commissioner  
John O. Houchins, Commissioner

RECEIVED  
FIELD OPERATIONS  
December 5, 1986  
DISTRICT 5

Larry R. Soward, Executive Director  
Mary Ann Hefner, Chief Clerk  
James K. Rourke, Jr., General Counsel

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. J. D. Shiver, Executive Vice President, Operations  
T & N Lone Star Warehouse Company  
P.O. Box 187  
Lone Star, Texas 75668

Re: T & N Lone Star Warehouse Company  
Solid Waste Registration No. 33373  
Closure of Hazardous Waste Facility

Dear Mr. Shiver:

We have reviewed your letter dated October 30, 1986, which transmitted the Publisher's Affidavit and a clipping of the published Notice of Closure of your hazardous waste disposal facility (Facility Unit No. 01 on your Notice of Registration). We have also reviewed your closure plan for the subject facility.

This letter constitutes approval by the Executive Director of the subject hazardous waste facility closure plan, as modified below. Our evaluation indicates that the closure activities described in the plan should provide reasonable assurance of effective industrial solid waste management, subject to the submittal of certifications and the modifications listed below.

This closure plan is modified by the following provisions:

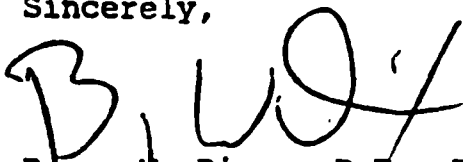
1. The accelerated ground water monitoring program which is to be conducted after removal of hazardous waste is completed (item 3.2.2. in the closure plan) shall be conducted in accordance with the procedures outlined in Enclosure 1.
2. It is noted that the schedule for closure allows 27 months for TWC issuance a permit for Lone Star Steel's landfill (Permit No. HW-50087). A revised schedule for closure shall be submitted to the Executive Director for review and approval within 30 days of issuance of the subject permit.

3. When measuring pH of ground water samples (Appendix B - Sampling and Analysis Plan), the pH meter shall be calibrated prior to analyzing samples from each well using buffer solutions having pH values greater than and less than that of the sample being analyzed.

Upon completion of closure activities, certification shall be submitted by the owner or operator of the facility and by an independent Registered Professional Engineer that the hazardous waste management facility has been closed in accordance with the approved closure plan. Also, notification that the facility has been closed shall be made in accordance with the provisions of 31 Texas Administrative Code Section 335.6.

Should you have any questions regarding this matter, please contact Michael Moore of the Hazardous and Solid Waste Enforcement Section at 512/463-8425.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. W. Dixon', written over the typed name.

Bryan W. Dixon, P.E., Director  
Hazardous and Solid Waste Division

MM/mm

cc: TWC District 5 Office



Enclosure 1

T&N Lone Star Warehouse Company - Reg. No. 33373  
"Accelerated" Ground Water Monitoring Program

Ground water monitoring wells at the landfill (Facility No. 01) shall be sampled quarterly for one year following the initial certification of closure (Step 12 in Table 4-2). The first sampling event shall take place within 30 days of certification, and each subsequent sampling event shall take place at 90-day intervals ( $\pm 10$  days) unless otherwise approved by the Executive Director. Sampling and analysis shall be conducted according to item 3.2.2. in the closure plan, and data for lead concentrations shall be statistically analyzed as follows:

1. First Quarter - Collect 4 individual replicate samples from each well and analyze for dissolved lead using the procedure described in Method 304 of Standard Methods for the Examination of Water and Wastewater, 16th edition (APHA, AWWA, WPCF). A minimum detection limit of 5  $\mu\text{g/L}$  shall be obtained using this method. For statistical evaluations, 5  $\mu\text{g/L}$  shall be used for any values which are less than the minimum detection limit. Determine the arithmetic means and variances for lead concentrations in each well.
2. Second and Third Quarters - Collect and analyze samples following the same procedures used during the first quarter. Determine arithmetic means and variances for dissolved lead for each well after each quarterly sampling event; these statistics shall be recalculated each quarter, using all replicate lead concentrations from the current and all previous quarters as individual samples (ie: mean and variance shall be calculated for each well using 8 samples the second quarter and 12 samples the third quarter).
3. Fourth Quarter - Collect and analyze samples following the same procedures used during the first quarter. When laboratory results are available for fourth quarter samples, means and variances for lead concentrations shall be calculated for each well as during the previous quarters, and the background mean and variance from the upgradient well shall be compared with means and variances for downgradient wells using the Student's t-test at the 0.05 level of significance.

Report the ground water monitoring data as required above for each monitor well on the enclosed forms within 20 days of completion of each quarterly laboratory analysis. Information shall be submitted for the highlighted sections of the example in Enclosure 2.

Enclosure 2 - Ground water monitoring report forms and  
instructions (attached)



QUARTERLY  
GROUND WATER MONITORING REPORT  
FOR HAZARDOUS WASTE FACILITIES  
(INTERIM PERMIT STATUS)

TABLE 1 - SAMPLE EVENT INFORMATION

Sample Date MM-DD-YY	Parameter Code	Sample Method	Parameter Code	Groundwater Elevation (ft.)
01-01-87	00007		72000	

To be completed by the owner/operator of the hazardous waste treatment, storage, or land treatment facility when a used to manage hazardous waste. Also attach data for groundwater monitoring.

Company Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Business Address: \_\_\_\_\_ Zip: \_\_\_\_\_

TABLE 2 - CONTAMINATION INDICATOR PARAMETERS

Replicate Number	Parameter Code	PH Standard Units Grab	Parameter Code	Conductivity $\mu$ hos Grab	Parameter Code	Total Organic Carbon mg/l Grab	Parameter Code	Total Organic Halogen mg/l Grab
Replicate 01	00400		00000		0000		T1049	
Replicate 02	00400		00000		0000			
Replicate 03	00400		00000		0000			
Replicate 04	00400		00000		0000			
Avg	70	00400	00000		0000			
Variance	71	00400	00000		0000			
T Value	72	00400	00000		0000			
Annual Mean	00	00400	00000		0000			
Annual Variance	91	00400	00000		0000			

SAMPLE ANALYSES QUESTIONS

- Were all samples filtered prior to analysis? ☐ yes ☐ no  
If no, indicate which samples were not filtered: \_\_\_\_\_
- Was total organic Halogen measured with a DX20 instrument? ☐ yes ☐ no  
If no, explain: \_\_\_\_\_
- Which method was used for the Coliform Bacteria test? ☐ membrane filtration ☐ fermenter on tube ☐ other: \_\_\_\_\_

TABLE 3 - GROUND WATER QUALITY INDICATOR PARAMETERS

Replicate Number	Parameter Code	Chloride mg/l Grab	Parameter Code	Iron mg/l Grab	Parameter Code	Manganese mg/l Grab	Parameter Code	Phenols mg/l Grab	Parameter Code	Sodium mg/l Grab	Parameter Code	Sulfate mg/l Grab
01	00940		T106		T105		T273		000		0004	

TABLE 4 - PRIMARY DRINKING WATER STANDARDS PARAMETERS

Parameter Code	Arsenic mg/l Grab	Parameter Code	Boron mg/l Grab	Parameter Code	Cadmium mg/l Grab	Parameter Code	Chromium mg/l Grab	Parameter Code	Fluoride mg/l Grab	Parameter Code	Lead mg/l Grab
T100		T100		T102		T102		0005	T10		01
Parameter Code	Mercury mg/l Grab	Parameter Code	Nitrate mg/l Grab	Parameter Code	Selenium mg/l Grab	Parameter Code	Silver mg/l Grab	Parameter Code	Endrin mg/l Grab	Parameter Code	Lindane mg/l Grab
	006		T114		T107		T039				02
Parameter Code	Aluminum mg/l Grab	Parameter Code	Yttrium mg/l Grab	Parameter Code	2,4 D mg/l Grab	Parameter Code	2,4,5-T mg/l Grab	Parameter Code	Heptachlor mg/l Grab	Parameter Code	Rhodium Counting Error
T04		T04		T073			11503		11504		03
Parameter Code	Gross Alpha pCi/l Grab	Parameter Code	Gross Alpha Counting Error	Parameter Code	Gross Beta pCi/l Grab	Parameter Code	Gross Beta Counting Error	Parameter Code	Coliform Bacteria 1/100 ml Grab	Parameter Code	
0150		0150		0350		0350		3100			04

I certify, under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Attachment "E" Reg. No. 33373

KEI  
Kerim

Closure Plan for Site #01  
Inactive Waste Landfill

T&N Lone Star Warehouse Company  
Lone Star, Texas

September 1986

EPA ID No. TXD981158249  
TX ID No. 33373

Each well was developed until the well water pH and conductivity stabilized and the water cleared. Following development, the well was bailed or pumped until no less than one volume (if bailed till dry) or three well volumes were removed (if the well recharged fast enough).

All well locations have been surveyed to establish horizontal control, top-of-casing (TOC) and ground surface elevations with respect to an established plant datum or mean sea level. Initial ground water level data were collected in order to estimate the hydraulic gradient and direction of ground water flow. The information gathered during this stage of the hydrogeological investigation will be used to prepare a preliminary report for submittal to TWC.

The locations of the initial four monitoring wells were chosen as the most likely positions to yield one upgradient and three downgradient wells. If, upon examination of the data gathered from the initial borings and wells, it is determined that this is not the case, it will be necessary to drill additional borings for completion as wells. A plan showing the proposed location of the additional well(s) will be submitted to TWC for approval prior to initiation of drilling. Following approval, the District 5 office of TWC will be notified at least 10 days prior to the start of drilling. Any additional wells will be completed using the same procedures as the first wells.

### 3.2 Groundwater Monitoring Program

#### 3.2.1 Initial Sampling and Analysis Program

Following installation and development of the wells, a routine sampling and analysis program will be initiated. The District 5 office of TWC will be notified by telephone at least ten days prior to each sampling event. This will allow the TWC the opportunity to observe sampling techniques and/or split samples. Procedures will follow those outlined in the "Sampling and Analysis Plan" (Appendix B).

Sampling will be done quarterly. The water elevation will be measured on each well before it is purged. To purge, three casing volumes of water will be removed, unless the well can be pumped or bailed to dryness. If recovery of wells which are bailed to dryness is sufficient, wells will be evacuated to dryness again. If necessary, the wells will be allowed to recover before the samples are collected.

Each well will be analyzed for pH, specific conductance, and lead. The results of the analysis will be reported to TWC within 20 days of receipt of laboratory results. During this initial sampling program, no replicates will be taken and no statistics performed. This program will remain in effect until all wastes have been removed from the site.

### 3.2.2. Sampling and Analysis for Clean Closure Certification

After excavation of waste has been completed, the sampling and analysis program needed to certify clean closure will begin. Water elevation measurement, purging, and sampling techniques will be the same as in the initial program. The District 5 office of TWC will be notified by telephone at least ten days prior to each sampling event. This will allow the TWC the opportunity to observe sampling techniques and/or split samples. Quadruplicate samples will be taken quarterly for a period of one year. One sample each quarter will be analyzed for pH and specific conductance; lead will be analyzed in quadruplicate. Within 20 days of receipt of laboratory results following each sampling event, the results will be submitted to the TWC on forms provided by the agency for that purpose. After four sampling events have been completed, the Student's t-test statistical analysis will be performed on the lead analytical results, using the method for accelerated groundwater monitoring which is to be provided by the TWC.

### 3.2.3 Sampling and Analysis Plan

The "Sampling and Analysis Plan" can be found in Appendix B.

## 3.3 Surface Water Monitoring Program

There is a surface water discharge (a spring) in the southern part of the landfill area. This discharge will be monitored monthly during those months in which there is a discharge leaving the landfill boundary. The approximate location is shown in Figure 3-1. Samples will be collected grab and analyzed for lead. Results of each month's analysis will be reported to the TWC by the twenty-fifth of each succeeding month.

Paul Hopkins, Chairman  
Ralph Roming, Commissioner  
John O. Houchins, Commissioner



Larry R. Soward, Executive Director  
Mary Ann Weiser, Chief Clerk  
James K. Bourke, Jr., General Counsel

January 30, 1987

Mr. Martin J. Rich  
Chief Financial Officer  
T & N Industries, Incorporated  
P.O. Box 38565  
Dallas, Texas 75238-0565

CERTIFIED MAIL

Re: RCRA Financial Assurance  
T & N Industries, SW 33373

Dear Mr. Rich:

This agency has received the financial test documents submitted January 20, 1987 providing closure cost assurance for the above referenced facility.

Our understanding is that T & N Lone Star Warehouse is a wholly owned subsidiary of Lone Star Steel. Year-end financial statements for 1985 were provided to support this financial test instead of the required 1986 figures, and it was unclear whether the figures presented were T & N Lone Star Warehouse or Lone Star Steel figures.

In order for T & N to utilize the financial test, figures must be audited independently from Lone Star Steel. In the event that an independent audit cannot be performed, financial assurance for T & N must be provided by Lone Star Steel through the corporate guarantee as specified in 40 CFR 265.143. The Texas Water Commission will expect a revised submittal using 1986 figures and providing the required Auditor's Annual Report and the Auditor's Special Report no later than 3/31/87.

If you require any assistance, please contact Ms. Sonia Ralls of our Hazardous and Solid Waste Division at 512/463-7764.



























Sincerely,

  
Russell S. Kimble, Chief  
Reports and Management Section  
Hazardous and Solid Waste Division

SR:ok

cc: Texas Water Commission District 5 Office - Tyler

## BORING LOG SYMBOLS

	Sand		Sandy Clayey Silt
	Silt		Sandy Silty Clay
	Clay		Peat
	Silty Sand		Organic Clay Or Peaty Clay
	Clayey Sand		Shells
	Sandy Silt		Fill
	Clayey Silt		Shale
	Sandy Clay		Limestone
	Silty Clay		Caliche
	Silty Clayey Sand		Sandy Cobbly Gravel
	Sandstone		Marl
	Siltstone		Igneous Rock
	Claystone		Sandy Febbly Gravel



ERM-Southwest, inc.

HOUSTON, TEXAS





# ERM - SOUTHWEST, INC.

## HOUSTON, TEXAS

Project **T & N LANDFILL GROUND WATER MONITORING SYSTEM**

Owner **T & N WAREHOUSE**

### Drilling Log <sup>16</sup>

Location **LONESTAR, TEXAS**

W.O. Number **35-06**

Well Number **TN-1**

Total Depth **70'** Diameter **4 3/4"**

Surface Elevation \_\_\_\_\_

Water level: Initial **10'** 24 Hrs \_\_\_\_\_

Screen Dia. **2"**

Length **5'** Slot Size **0.01"**

Casing Dia. **2"**

Length **15 1/4'; 1/2' SUMP** Type \_\_\_\_\_

Drilling Company **SOUTHWESTERN LABS.**

Drilling Method \_\_\_\_\_

Driller **FLOYD SNEED**

Log By **H.C. SHUMWAY**

Date Drilled **8/11-8/12/86**

Sketch Map

Notes <sup>1</sup> Exploratory borehole drilled originally to 70' and grouted. TN-1 drilled to a depth of 23'. Adjacent to borehole.

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0					0-27.5	0-22	VERY SANDY CLAY TO VERY CLAYEY SAND-mottled yellow, orange, and red, gray sandy laminae and layers, small ferrous cemented sandstone rocks, sand grains.-subangular, medium grained organic debris, fill.
5							--at 7' have alternating layers of clayey sand and sand, organic debris and roots present, clay pockets and lenses.
10							--at 10' becomes brown and tan, sand is wet.
15				1.25			-- at 14' becomes tan and gray with gray clay pockets, damp and medium stiffness, sandstone and ferrous sandstone fragments.
20				4.50+			-- at 15' becomes orange and tan with soft white clay streaks.
25					27.5-29	22-37	CLAYEY SHALE - dark brown, hard, laminated with many dark olive green glauconetic sand* lenses (1/2" to 1/3" thick). Natural material
30							--at 24' have a decrease in sand lenses (1/4" to 1/3") some siderite layers and stones.
35					34-35		--at 29 1/2' have siderite layers
40					37-38	37-39	--at 34' see minor amounts of pyrite crystals along sand laminae.
					39-40	39-	VERY CLAYEY SAND-Reddish brown, .15 to .30 mm grain size. Dry.
					44-45		SLIGHTLY CLAYEY SAND-yellowish orange, dense, fairly clean sand, .1-.2 mm diameter, somewhat splintery grains, uncemented, clay. Has ferrous cemented laminae.
							--at 44' becomes yellow to red mottled sand with white to brown & gray clay pockets and small laminae.



ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

# Drilling Log 16

Location LONE STAR, TEXAS

W.O. Number 35-06

Sketch Map

Well Number TN-1

Total Depth \_\_\_\_\_ Diameter \_\_\_\_\_

Surface Elevation \_\_\_\_\_

Water level: Initial \_\_\_\_\_ 24 Hrs \_\_\_\_\_

Screen Dia. \_\_\_\_\_

Length \_\_\_\_\_ Slot Size \_\_\_\_\_

Casing Dia. \_\_\_\_\_

Length \_\_\_\_\_ Type \_\_\_\_\_

Notes

\* Cohesive strength or Penetration Test (Blows per 6")

Drilling Company \_\_\_\_\_ Drilling Method \_\_\_\_\_

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled \_\_\_\_\_

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq. ft.)	Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structure's)
45								
50								-- at 49' becomes tan and white Queen City sand. 10-15 mm grains, angular to subangular, very dense, dry.
55								-- at 54' becomes white clean Queen City sand, dry.
60								-- at 62' driller notes wet sand.
65								-- at 64.5' becomes dense tan and white Queen City sand, wet. Bottom clay layer with leaf molds.
70								-- at 69' have wet gray sand
								* Note: The glauconitic sand is composed of either glauconite or chamosite. The difference is not perceivable in the field.



ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

Location LONE STAR, TEXAS

W.O. Number 35-06

Well Number TN-2

Total Depth 70' Diameter 4 3/4"

Surface Elevation \_\_\_\_\_

Water level: Initial 9' 24 Hrs \_\_\_\_\_

Screen Dia. 2"

Length 10' Slot Size 0.01"

Casing Dia. 2"

Length 16.5'/3' SUMP Type SCH 40 PVC

Drilling Company SOUTHWESTERN LABS.

Drilling Method AIR ROTARY TO 16' THEN WET ROTARY

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled 8/13/86

## Drilling Log

Sketch Map

### Notes

Initially the hole was logged to 70' and grouted up. Then TN-2 was re-drilled to 29.5'

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type Cohesive Strength (tons/sq. ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0				0-20	0-28.5'	CLAYEY SAND TO VERY SANDY CLAY--mottled orange to red, .2mm dia. grain size, ferrous sandstone fragments, organic debris, fill, dry. --at 4' has clay pockets and many ferrous rock fragments, slightly damp. --at 6' have sand layer, grain size .1 to .3mm. --at 7' becomes tan and white with few ferrous rock fragments --9' becomes wet, non-cemented tan and light gray silty sand. --11' becomes orangish tan to red sandy clay --12' has organic debris and brown clay laminae.  --at 18' becomes light gray and gray sand with few silt pockets and organic debris, fill.
5						
10						
15						
20						
25				24-25		
30				28.5-29.5	28.5-49	CLAYEY SHALE - dark brown, laminated with silty sand small laminae, many dark olive green glauconitic sand lenses 1/4 to 1" in thickness. Have occasional hard sideritic layers 1/2 to 1 1/2" thick. Natural. --at 34' have a decrease in glauconite sand lenses, few small pyrite crystals along silt laminae
35				34-35		
40				39-40		
45				44-45		--at 44' have green Clay/Silt layers and a decrease in glauconitic sand layers



ERI - SOUTHWEST, INC.

HOUSTON, TEXAS

T & N LANDFILL GROUND  
Project WATER MONITORING SYSTEM

Owner T &amp; N WAREHOUSE

## Drilling Log

Location LONE STAR, TEXAS

W.O. Number 35-06

Well Number TN-2

Total Depth \_\_\_\_\_ Diameter \_\_\_\_\_

Surface Elevation \_\_\_\_\_

Water level: Initial \_\_\_\_\_ 24 Hrs \_\_\_\_\_

Screen Dia. \_\_\_\_\_

Length \_\_\_\_\_ Slot Size \_\_\_\_\_

Casing Dia. \_\_\_\_\_

Length \_\_\_\_\_ Type \_\_\_\_\_

Drilling Company \_\_\_\_\_

Drilling Method \_\_\_\_\_

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled 8/13/86

Sketch Map

Notes

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq. ft.)	Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
45								
50						49-50	49-64	SLIGHTLY CLAYEY SILTY SAND- green, some dark brown clayey shale layers and siderite layers
55						54-55		--at 54' becomes very silty sand
60						59-60		--60' have gray sand layer
65						64-65	64-69	CLAYEY SHALE - dark brown, with wet green silty sand layers/lenses.
70						69-70	69-	SAND- gray
*Note: The glauconite sand is composed of either glauconite or chamosite. The difference is not perceivable in the field.								



ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

## Drilling Log

Location LONE STAR, TEXAS

W.O. Number 35-06

Well Number TN-3

Total Depth 35' Diameter 4 3/4"

Surface Elevation \_\_\_\_\_

Water level: Initial 12.5' 24 Hrs 14.5'

Screen Dia. 2"

Length 5' Slot Size 0.01"

Casing Dia. 2"

Length 16.4'/3' SUMP Type SCH 40 PVC

Drilling Company SOUTHWESTERN LABS.

Drilling Method AIR ROTARY

Driller FLOYD SNEED

Log By H.C. SHUMWAY

Date Drilled 8/13/86

Sketch Map

Notes

Hole drilled initially to 35' and then grouted up to the surface. TN-3 redrilled to a depth of 29.4'.

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (tons/sq. ft.)	Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0						0-20	0-4	VERY SANDY CLAY TO CLAY SAND - mottled orange to tan, ferrous sandstone fragments, gravel, fill.
5							4-6	SLIGHTLY CLAYEY SAND - orange, grain size is from .2-.25 mm.
							6-7	--at 5' becomes tan sand with tan to red clay lenses, fill.
10							7-10	VERY SANDY CLAY - reddish to yellowish brown, with ferrous sandstone fragments, fill.
							10-13.5	SAND - tan, with silty sand and very sandy clay layers, dry, fill.
								--at 10' dry
15							13.5-16.5	SILTY SAND - dark olive green, with glauconitic sand*, grain size .1-.3 mm, Natural
								--at 12' becomes blackish green, wet.
20							16.5-18	SANDSTONE - dark olive green, wet, with siderite layers (1/2" thick)
							18-31.5	CLAYEY SAND - dark olive green glauconite sand, wet.
								CLAYEY SHALE - dark brown, silt laminae.
25						24-25		Lenses of dark olive green glauconitic sand; size and amount of lenses decreases with depth.
								--at 24' have pyrite crystals and mica flakes in green sand lenses
30						29-30		at 29' very few sand lenses.
							31.5-35	VERY CLAYEY SAND - orangish brown, .15 to .25 mm subrounded grains, micaceous, dry.
35						34-35		
40								

\*NOTE: Glauconitic sand may be composed of either glauconite or chamosite. The difference is not perceivable in the field.



ERM - SOUTHWEST, INC.

HOUSTON, TEXAS

Project T & N LANDFILL GROUND WATER MONITORING SYSTEM

Owner T & N WAREHOUSE

## Drilling Log

Location LONE STAR, TEXAS

W.O. Number 35-06

Sketch Map

Well Number TN-4

Total Depth 33' Diameter 4 3/4"

Surface Elevation \_\_\_\_\_

Water level: Initial 13' 24 Hrs 14.2'

Screen Dia. 2"

Length 10' Slot Size 0.01"

Casing Dia. 2"

Length 14' / 3' SUMP Type SCH 40 PVC

Drilling Company SOUTHWESTERN LABS.

Drilling Method AIR ROTARY

Driller FLOYD SNEED

Log By H.C. SHUMWAY

8/12-  
Date Drilled 8/13/86

### Notes

<sup>1</sup> Hole originally drilled to 33' then grouted to surface. TN-4 Redrilled to a depth of 29'.

DEPTH (Feet)	GRAPHIC LOG	Well Construction	Sample Type	Cohesive Strength (lons/sq. ft.) to Penetration Test (Blows per 6")	Sample Interval (Ft.)	Description Interval (Ft.)	Description/Soil Classification (Color, Texture, Structures)
0					0-5	0-6	CLAYEY SAND TO VERY SANDY CLAY- mottled reddish tan color, many ferrous sandstone fragments, clay pockets. fill.
5				23/37	1-1.5		--at 3' have limonite layers/large fragments,
					2-3		--4' becomes light gray sandy clay
					3-20	6-8.5	--5' becomes light brown sandy clay with clay, clay sand and ferrous sandstone layers.
				< .50	continuous on 1 foot intervals	8.5-12	SILTY CLAY - light brown, white clay laminae and streaks, large ferrous sandstone fragments.
10				4.00	8.5-9		CLAY - dark gray, very soft, few dark green glauconite sands*
15						12-17	--at 9' becomes bluish gray hard clay with increase in green sand (Natural)
20							Sandstone - dark olive green, with glauconite sand, some siderite layers.
25					24-25	17-31.5	--at 13' becomes wet
30					29-30		CLAYEY SHALE - dark brown, laminated, small silt laminae, and many dark olive green glauconite sand lenses that decrease with depth, small pyrite crystals along laminae. Sand damp but not wet.
35					32-33	31.5-33	--at 29' very little green sand, predominately clayey shale
40							CLAYEY SANDSTONE - orange, 2 to .3 mm subangular grains, fairly cohesive, white clay lenses and laminae with little mica. Dry.

\*Note: Glauconitic sand may be composed of either glauconite or chamosite. The difference is not perceivable in the field.

	December 86	January	February	March	April
TN-1	420.77	421.13	421.10	421.57	421.38
TN-2	421.21	421.38	421.32	421.63	421.43
TN-3	415.74	414.98	414.94	412.98	412.88
TN-4	416.16	416.37	416.21	416.04	415.76
Pond	414.50	414.50	414.50	412.03	412.03

\* All water level evaluations (MSL)(feet)

T+N attributes cutting of the southern dike to the lower elevations observed at monitoring well no. 3 (TN-3). The dike was breached in February.

TEXAS WATER COMMISSION

District No.

Monitoring Well Elevations

T+N Lone Star Warehouse Co.

Reg. No. 33373

DW0550

TEXAS WATER COMMISSION  
NOTICE OF REGISTRATION  
INDUSTRIAL SOLID WASTE GENERATION/DISPOSAL

06-10-86

THIS IS NOT A PERMIT AND DOES NOT CONSTITUTE AUTHORIZATION OF ANY WASTE MANAGEMENT ACTIVITIES OR FACILITIES LISTED BELOW. REQUIREMENTS FOR SOLID WASTE MANAGEMENT ARE PROVIDED BY TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TEXAS WATER COMMISSION (TWC). CHANGES OR ADDITIONS TO WASTE MANAGEMENT METHODS REFERRED TO IN THIS NOTICE REQUIRE WRITTEN NOTIFICATION TO THE TWC.

DATE OF NOTICE: 06-13-86

REGISTRATION DATE: 10-15-85

REGISTRATION NUMBER: 33373

EPA I.D. NUMBER: TXD981158249

THE REGISTRATION NUMBER PROVIDES ACCESS TO STORED INFORMATION PERTAINING TO YOUR OPERATION. PLEASE REFER TO THAT NUMBER IN ANY CORRESPONDENCE.

COMPANY NAME: TEN LONE STAR WAREHOUSE CO.  
P.O. BOX 187  
LONE STAR TX 75668

GENERATING SITE LOCATION:  
HIGHWAY 253, LONE STAR, TEXAS  
CONTACT PERSON: GEORGE HART  
PHONE: (214) 656-3461  
NUMBER OF EMPLOYEES: GREATER THAN 100  
TWC DISTRICT: 05

REGISTRATION STATUS: ACTIVE  
REGISTRATION TYPE: GENERATOR  
HAZARDOUS WASTE STATUS: GENERATOR/TSD FACILITY

I. WASTE GENERATED:

WASTE NUMBER	DESCRIPTION	CLASS	CODE	DISPOSITION
001	THREADLUBE COMPOUND	IH	974020	ON-SITE/OFF-SITE
EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D008				
002	SOLVENTS, SPENT	IH	910100	ON-SITE/OFF-SITE
EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D001				
003	VARNISH RESIDUE	IH	983540	ON-SITE/OFF-SITE



NOTICE OF REGISTRATION (CONTINUED)  
REGISTRATION NUMBER: 33373  
COMPANY NAME: TEN LONE STAR WAREHOUSE CO.

PAGE 2

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): 0008, 0001

004	OILS, WASTE	I	110450	ON-SITE/OFF-SITE
005	MISC. PLANT WASTES	II	270770	ON-SITE
006	GARBAGE	II	280160	ON-SITE/OFF-SITE
007	OIL, WATER SOLUBLE	I	109770	OFF-SITE

II. SHIPPING/REPORTING: PURSUANT TO TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TWC PERTAINING TO INDUSTRIAL SOLID WASTE MANAGEMENT, ISSUANCE OF MANIFESTS AND MONTHLY REPORTING ARE REQUIRED FOR OFF-SITE STORAGE/PROCESSING/DISPOSAL OF THE FOLLOWING CLASS I WASTES LISTED IN PART I. A SHIPMENT SUMMARY REPORT SHOULD BE SUBMITTED FOR EACH MONTH NOT LATER THAN THE 25TH OF THE FOLLOWING MONTH.

001	974020	THREADLUBE COMPOUND
002	910100	SOLVENTS, SPENT
003	983540	VARNISH RESIDUE
004	110450	OILS, WASTE
007	109770	OIL, WATER SOLUBLE

III. ON-SITE WASTE MANAGEMENT FACILITIES:

FAC NO.	FACILITY	STATUS
01	LANDFILL DISPOSAL OF WASTE NUMBER(S) 001, 002, 003, 005, 006 30000 CY  SUBJECT TO PERMIT NUMBER (PENDING) PREVIOUSLY MINED AREA BACKFILLED WITH WASTE AND COVERED	INACTIVE
02	LANDFILL DISPOSAL OF WASTE NUMBER(S) 005 8250 CY PREVIOUSLY MINED AREA BACKFILLED WITH WASTE AND COVERED	ACTIVE
03	TANK (SURFACE) STORAGE OF WASTE NUMBER(S) 004 525 G TANK FOR COLLECTION OF WASTG OILS PRIOR TO SALE	ACTIVE

- 04 CONTAINER STORAGE AREA ACTIVE  
STORAGE  
OF WASTE NUMBER(S) 001, 002, 003
- 05 MISCELLANEOUS STORAGE CONTAINERS ACTIVE  
STORAGE  
OF WASTE NUMBER(S) 006  
MISC. CONTAINERS, COLLECTION OF WASTE 06

UNLESS OTHERWISE STATED ABOVE, FACILITIES ARE LOCATED  
AT HIGHWAY 250, LONE STAR, TEXAS  
COUNTY OF MORRIS

IV. RECORDS.

- A. FOR PURPOSES OF FILING ANNUAL REPORTS PURSUANT TO TEXAS  
ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TWC  
PERTAINING TO INDUSTRIAL SOLID WASTE MANAGEMENT, RECORDS  
SHOULD BE MAINTAINED FOR STORAGE, PROCESSING AND/OR DISPOSAL  
OF THE FOLLOWING WASTE(S) LISTED IN PART I:

001 974020 THREADLUBE COMPOUND

002 910100 SOLVENTS, SPENT

003 983540 VARNISH RESIDUE

004 110450 OILS, WASTE

005 270770 MISC. PLANT WASTES

006 280160 GARBAGE

- B. PROOF OF RECORDATION IN THE COUNTY DEED RECORDS, AS REQUIRED  
BY TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE  
TDWR, SHOULD BE SUBMITTED TO THE EXECUTIVE DIRECTOR FOR THE  
FOLLOWING FACILITIES LISTED IN PART III IN ACCORDANCE WITH  
THE FOLLOWING SCHEDULES:

NEW FACILITIES - PRIOR TO INITIATION OF  
DISPOSAL OPERATIONS.

EXISTING FACILITIES - AS SOON AS POSSIBLE, BUT NO  
LATER THAN SIXTY (60) DAYS FROM  
THE DATE OF THIS NOTICE, UNLESS  
PREVIOUSLY SUBMITTED.

FAC NO FACILITY

-----

01 LANDFILL

~~02 LANDFILL~~

# Texas Water Commission

## INTEROFFICE MEMORANDUM

TO : Russ Kimble, Chief, Reports & Management Section, DATE: 4-27-87  
Hazardous & Solid Waste Division  
THRU <sup>AKS</sup> Luis E. Campos, Hazardous & Solid Waste Coordinator,  
Field Operations Division  
ATTN: MICHAEL MOON, Enforcement Coordinator  
FROM : Kevin Phillips, District 5  
SUBJECT: T & N Lone Star Warehouse Co., Registration No. 33373

On March 30, 1987, I conducted an industrial solid waste inspection of the subject facility. I was accompanied on the inspection by Mr. Steve Boyd of T & N Lone Star Warehouse Co. (T&N) and Mr. Mark Snyder of Lone Star Steel Co.

T&N is a bonded public warehouse which leases space to oilfield pipe manufacturers and sales companies, oil companies, and drilling companies. Hazardous wastes which entered facility 01 (Landfill) were generated by pipe inspection companies as a result of cleaning lead-based pipe threading compounds from the pipe's threads with solvent.

T&N was submitted for enforcement on October 8, 1985 by District 5. On August 13, 1986 the Texas Water Commission issued an Agreed Order to T&N in order to resolve violations of the Industrial Solid Waste Rules. In the Agreed Order issued, T&N was to submit a closure plan which addressed ground water monitoring and demonstrate financial assurance for the closure of the waste disposal facility 01 (Landfill).

During the industrial solid waste inspection conducted on 3-30-87, T&N was found to be in violation of the Agreed Order which required ground water monitoring and financial assurance. Since these violations are deficient of the Agreed Order and are Class I violations, the following information is being submitted for review and enforcement by Central Office.

The following violations are interpreted as Class I violations by District 5:

<u>Violation</u>	<u>Data Source</u>	<u>Permit or Other Requirement</u>
1. Failure to provide adequate financial assurance for the closure of the landfill.	CEI Investigation Report 3-30-87	TAC 335.112/40 CFR 265, Subpart H. Agreed Order August 13, 1986
2. Failure to monitor ground water at the landfill as required by the approved closure plan.	"	Agreed Order August 13, 1986; TAC 335.116(a)
3. Failure to determine which monitoring wells are adequate upgradient and downgradient wells.	"	TAC 335.116(b)/40 CFR 265.91

IOM - T&N Lone Star Warehouse Co.  
April 27, 1987  
Page 2

The following violations are interpreted as Class II violations by District 5:

<u>Violation</u>	<u>Data Source</u>	<u>Permit or Other Requirement</u>
1. Failure to identify the correct mailing address and contact person on the NOR.	CEI Investigation Report 3-30-87	TAC 335.6
2. Failure to make a hazardous waste determination on heavy equipment oils, locomotive oils, and vehicle oils.	"	TAC 335.62
3. Failure to label hazardous waste drums with the words "Hazardous Waste."	"	TAC 335.69(a)(3)
4. Failure to have the date of accumulation on hazardous waste drums in storage.	"	TAC 335.69(a)(2)
5. Failure to document the type and amount of each personnel training course.	"	TAC 335.112/40 CFR 265.16(d)(3)
6. Failure to document job titles and job descriptions for each person	"	TAC 335.112/40 CFR 265.16(d)(2)
7. Failure to have fire extinguishers in the container storage area which stores flammable waste.	"	TAC 335.112/40 CFR 265.32(c)
8. T&N should have a contingency plan for this facility, not a contingency plan labeled Lone Star Steel.	"	TAC 335.112/40 CFR 265.50
9. Failure to have a written waste analysis plan.	"	TAC 335.112/40 CFR 265.13
10. Failure to provide adequate security (fencing) around the hazardous waste landfill.	"	TAC 335.112/40 CFR 265.14(a)
11. Failure to post signs around the hazardous waste landfill that state "Danger-Unauthorized Personnel Keep Out."	"	TAC 335.112/40 CFR 265.14(c)

T&N Lone Star Warehouse Co.  
27, 1987

3

<u>Violation</u>	<u>Data Source</u>	<u>Permit or Other Requirement</u>
general inspection schedule d be modified to include ection of fire equipment installed at container ge area.	CEI Investigation Report 3-30-87	TAC 335.112/40 CFR 265.15(b)(1)
ection logs should include the and time of inspections.	"	TAC 335.112/40 CFR 265.15(d)
re to post "No Smoking" signs e container storage area.	"	TAC 335.112/40 CFR 265.17(a)
re to maintain a written ting record of the locations mounts of hazardous waste sed of and stored for facility d 04.	"	TAC 335.112/40 CFR 265.73(a)(2)
re to make weekly inspections ste stored at facility 04 ainer storage area).	"	TAC 335.112/40 CFR 265.174
re of the closure plan to ate the amount of waste sed of at facility 01 (landfill).	"	TAC 335.112/40 CFR 265.112(a)(2)
re to keep records of industrial waste treatment, storage, and sal activities.	"	TAC 335.9

*John W. Witherspoon*  
Phillips, Inspector

*John W. Witherspoon*  
John W. Witherspoon, Manager

REF. 11

ECOLOGY & ENVIRONMENT, INC.

PC80-1-A45

Tex.

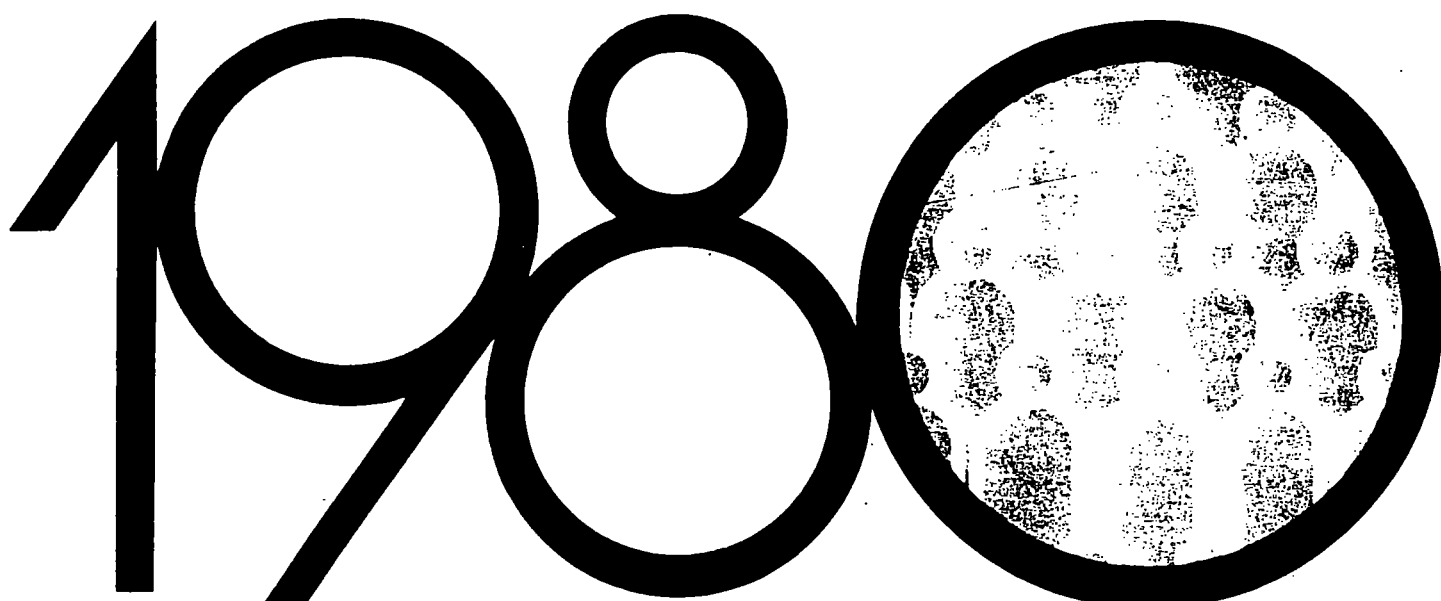
CHARACTERISTICS OF THE POPULATION

# Number of Inhabitants

## TEXAS

HA  
215.T5  
1980

# 1980



## Census of Population

U.S. Department of Commerce  
BUREAU OF THE CENSUS

Table 4. Population of County Subdivisions: 1960 to 1980—Con.

[Total population of a place in two or more county subdivisions appears in table 5. Counts relate to county subdivisions and places as defined at each census. For meaning of symbols, see Introduction]

County Subdivisions	1980	1970	1960	County Subdivisions	1980	1970	1960
Madison County—Con.				Montgomery County—Con.			
North Zurich division—Con.				Southeast Montgomery division—Con.			
Narmange town (pt.)	56	34	82	Conroe city <sup>151</sup>	18 034	11 969	9 192
Marion County	10 360	8 517	8 049	Cut and Shoot town <sup>151</sup>	568	451	...
Marion East division	5 213	5 154	5 576	Houston city (pt.) <sup>151</sup>	19	9	...
Marion city	2 643	2 866	3 082	Kingwood (CDP) (pt.)	167	...	...
Marion West division	5 147	3 363	2 473	Oak Ridge North town <sup>151</sup>	2 504	...	...
Martin County <sup>161</sup>	4 684	4 774	5 068	Patton village <sup>151</sup>	1 050	667	...
Stanton division	3 304	3 154	3 380	Porter Heights (CDP)	1 331	...	...
Stanton city <sup>161</sup>	2 314	2 117	2 228	Roman Forest town <sup>151</sup>	929	...	...
Tarzon-Lenora division	1 380	1 620	1 688	Shenandoah city <sup>161</sup>	1 793	...	...
Adair city (pt.)	92	108	...	Splendora city	721	194	...
Mason County <sup>162</sup>	3 683	3 356	3 780	The Woodlands (CDP)	8 443	...	...
Mason East division	3 005	2 679	...	Woodbranch village <sup>161</sup>	720	378	...
Mason city (pt.) <sup>162</sup>	2 153	1 806	1 910	Woodloch town <sup>161</sup>	351	...	...
Mason West division	678	677	...	Willis division	8 291	...	...
Mason city (pt.) <sup>162</sup>	...	...	...	Panorama Village city <sup>161</sup>	1 186	...	...
Matagorda County <sup>163</sup>	37 828	27 913	25 744	Willis city <sup>161</sup>	1 674	1 577	975
Bay City division	24 043	...	...	Moore County <sup>163</sup>	16 575	14 060	14 773
Bay City city <sup>163</sup>	17 837	13 445	11 656	Dumas division	14 389	11 873	11 913
Van Vleet (CDP)	1 157	1 051	...	Cactus city	898	644	...
Matagorda-Sargent division	3 292	...	...	Dumas city <sup>163</sup>	12 194	9 771	8 477
Palacios division	5 796	4 544	4 704	Fritch city (pt.)	...	...	...
Palacios town <sup>163</sup>	4 667	3 642	3 676	Sunray division	2 186	2 187	2 860
Tidwell division	4 697	2 778	2 984	Sunray city	1 952	1 854	1 967
Markham (CDP)	1 554	...	...	Morris County <sup>163</sup>	14 629	12 310	12 576
Maverick County <sup>164</sup>	31 398	18 093	14 508	Dangerfield division	9 762	8 009	8 179
Eagle Pass division	30 047	...	...	Dangerfield town <sup>163</sup>	2 630	2 330	3 133
Eagle Pass city <sup>164</sup>	21 407	15 364	12 094	Lane Star town <sup>163</sup>	2 036	1 760	1 513
Quemada division	1 351	...	...	Naples division	4 867	4 301	4 397
Medina County <sup>165</sup>	23 164	20 249	18 904	Naples town <sup>163</sup>	1 908	1 726	1 692
Castroville-La Caste division	4 439	3 730	3 386	Omaha city	960	898	854
Castroville city	1 821	1 893	1 508	Motley County <sup>164</sup>	1 950	2 178	2 870
La Caste city <sup>165</sup>	862	768	...	Matador North division	385	494	...
Devine-Natalia division	9 672	8 074	7 287	Matador South division	1 565	1 684	...
Devine city <sup>165</sup>	3 756	3 311	2 522	Matador town <sup>164</sup>	1 052	1 091	1 217
Lyle city (pt.) <sup>165</sup>	359	(NA)	...	Roaring Springs town	315	398	...
Natalia city	1 264	1 296	...	Nacogdoches County <sup>164</sup>	46 786	36 362	28 046
D'Hanis division	1 199	...	...	Chireno-Martinsville division	3 375	2 343	2 349
Hondo division	7 854	...	...	Chireno city <sup>165</sup>	371	308	...
Hondo city <sup>165</sup>	6 057	5 487	4 992	Cushing-Douglas division	3 433	2 839	3 073
Menard County <sup>166</sup>	2 346	2 646	2 964	Cushing city <sup>165</sup>	518	396	388
Menard East division	249	...	...	Garrison division	2 552	2 120	1 941
Menard West division	2 097	...	...	Garrison town	1 059	1 082	951
Menard city <sup>166</sup>	1 697	1 740	1 914	Nacogdoches division	37 426	...	...
Midland County <sup>167</sup>	82 636	65 433	67 717	Appleby city	453	280	...
Midland division	71 011	...	...	Nacogdoches city <sup>166</sup>	27 149	22 544	12 674
Midland city (pt.) <sup>167</sup>	69 844	59 463	62 625	Navarro County <sup>166</sup>	35 323	31 150	34 423
Midland Rural division	11 625	...	...	Blooming Grove division	2 829	2 238	2 669
Midland city (pt.) <sup>167</sup>	681	...	...	Blooming Grove town <sup>166</sup>	823	740	725
Milam County <sup>168</sup>	22 732	20 028	22 263	Frost town	564	548	508
Budchotts division	1 050	1 019	1 388	Corisana division	25 790	...	...
Budchotts town <sup>168</sup>	388	...	...	Angus town <sup>168</sup>	244	...	...
Burlington division	1 276	1 530	2 435	Barry city	192	149	178
Cameron division	6 844	6 557	6 844	Corisana city <sup>168</sup>	21 712	19 972	20 344
Cameron city <sup>168</sup>	5 721	5 546	5 640	Ernhouse town	197	158	170
Devilla division	907	902	1 250	Mustang town <sup>168</sup>	12	...	...
Gause-Milano division	2 173	1 881	2 023	Retreat town	255	263	...
Milano town <sup>168</sup>	468	...	...	Dawson division	1 871	1 775	2 213
Rockdale division	8 197	6 166	6 009	Dawson town	747	848	911
Rockdale city <sup>168</sup>	5 611	4 655	4 481	Kerens division	2 896	...	...
Thorndale division	2 285	1 973	2 314	Goodlow city <sup>168</sup>	343	...	...
Thorndale city (pt.) <sup>168</sup>	1 296	1 031	995	Kerens city <sup>168</sup>	1 582	1 446	1 123
Mills County <sup>169</sup>	4 477	4 212	4 467	Powell town	111	121	...
Goldthwaite division	2 568	2 537	2 246	Rice division	1 334	938	1 306
Goldthwaite city <sup>169</sup>	1 783	1 693	1 383	Rice city (pt.) <sup>169</sup>	432	284	295
Mullin-Priddy division	1 318	1 139	1 495	Richland division	603	620	969
Mullin town	213	203	219	Richland town	260	309	287
Star division	591	536	726	Streetman town (pt.)	19	15	11
Mitchell County	9 088	9 073	11 255	Newton County <sup>169</sup>	13 254	11 657	10 372
Colorado City division	6 558	6 440	8 193	Burkeville division	1 872	...	...
Colorado City city	5 405	5 227	6 457	Call division	2 913	2 460	2 116
Loraine division	1 632	1 738	2 013	Deweyville division	2 124	2 124	1 485
Loraine town	929	700	837	Deweyville (CDP)	1 171	...	...
Westbrook division	898	895	1 049	Newton division	5 309	...	...
Westbrook city	298	298	214	Newton city <sup>169</sup>	1 620	1 529	1 233
Montague County <sup>170</sup>	17 410	15 326	14 893	Nolan County <sup>170</sup>	17 359	16 220	18 963
Bowie division	9 503	8 150	7 024	Blackwell-Nolan division	744	798	970
Bowie city <sup>170</sup>	5 610	5 185	4 566	Blackwell town (pt.)	265	266	302
Montague-Forestburg division	1 300	1 170	1 268	Roscoe division	2 684	2 551	2 944
Nacoma division	4 670	4 375	4 889	Roscoe city <sup>170</sup>	1 628	1 580	1 490
Nacoma city <sup>170</sup>	2 992	2 871	3 127	Sweetwater city (pt.)	10	...	...
St. Jo division	1 937	1 631	1 712	Sweetwater division	13 931	...	...
St. Jo city <sup>170</sup>	1 071	1 054	977	Sweetwater city (pt.) <sup>170</sup>	12 232	12 020	13 914
Montgomery County <sup>181</sup>	128 487	49 479	26 839	Nueces County <sup>170</sup>	268 215	237 544	221 573
Magnolia division	12 217	...	...	Bishop division	6 740	5 905	6 854
Magnolia town <sup>181</sup>	867	315	...	Bishop town <sup>170</sup>	3 706	3 466	3 722
Stagecoach town <sup>181</sup>	349	...	...	North San Pedro (CDP) (pt.)	842	(NA)	...
Montgomery division	8 222	...	...	Corpus Christi division	236 437	204 525	167 690
Montgomery city	258	216	...	Corpus Christi city (pt.) <sup>181</sup>	231 875	...	...
Southeast Montgomery division	99 757	...	...	Portland city (pt.) <sup>181</sup>	...	...	...
Chateau Woods village <sup>181</sup>	590	...	...	Corpus Christi West division	6 796	3 216	...
				Agua Dulce city	934	742	867
				Corpus Christi city (pt.) <sup>181</sup>	40	...	...
				North San Pedro (CDP) (pt.)	1 711	(NA)	...
				San Patricio city (pt.) <sup>181</sup>	31	...	...

See footnotes at end of table.

Table 4. Population of County Subdivisions: 1960 to 1980—Con.

[Total population of a place in two or more county subdivisions appears in table 5. Counts relate to county subdivisions and places as defined at each census. For meaning of symbols, see Introduction.]

County Subdivisions	1980	1970	1960	County Subdivisions	1980	1970	1960
Bowie County—Con.				Calhoun County <sup>26</sup>	19 574	17 831	16 592
New Boston division	6 910	6 327	5 167	Kamey—Six Mile division	883	726	655
New Boston town (pt.) <sup>17</sup>	4 628	4 034	2 773	Point Comfort division	1 799	2 004	1 886
Texarkana division	49 544	44 895	30 218	Point Comfort city <sup>18</sup>	1 125	1 446	1 453
Leary city (pt.)	44	(NA)	...	Port Lavaca division	13 394	12 142	10 715
Nash city <sup>17</sup>	2 022	1 961	1 124	Port Lavaca city <sup>18</sup>	10 911	10 491	8 864
Texarkana city (pt.) <sup>17</sup>	31 262	30 497	30 218	Seadrift division	3 498	2 959	3 336
Wake Village city <sup>17</sup>	3 865	2 408	1 140	Port O'Connor (CDP)	1 031	...	...
				Seadrift city <sup>18</sup>	1 277	1 092	1 082
Brazoria County <sup>18</sup>	169 587	108 312	76 204	Callahan County <sup>27</sup>	10 992	8 205	7 929
Ahlin—Pearland division	57 576	...	...	Baird division	2 379	2 151	2 405
Ahlin city <sup>18</sup>	16 515	10 671	5 643	Baird city <sup>27</sup>	1 696	1 538	1 633
Brookside Village city <sup>18</sup>	1 453	1 507	560	Pumas town	116	134	203
Hillcrest village	771	650	...	Clyde division	6 511	4 115	3 376
Iowa Colony village (pt.) <sup>18</sup>	344	...	...	Clyde town <sup>27</sup>	2 562	1 635	1 116
Liverpool village <sup>18</sup>	602	319	...	Cross Plains division	2 102	1 939	2 148
Martwell city <sup>18</sup>	3 549	106	...	Cross Plains town <sup>27</sup>	1 240	1 192	1 168
Pearland city (pt.) <sup>18</sup>	12 461	6 444	1 497				
Angleton—Basharon division	31 942	...	...	Cameron County <sup>28</sup>	209 727	140 368	151 098
Angleton city <sup>18</sup>	13 929	9 906	7 312	Brownsville division	101 828	...	...
Baileys Prairie village	353	228	...	Brownsville city <sup>28</sup>	84 997	52 522	48 040
Bonney village <sup>18</sup>	94	...	...	East Cameron division	7 994	...	...
Danbury city <sup>18</sup>	1 357	807	...	Bayview town (pt.) <sup>28</sup>	148	(NA)	(NA)
Iowa Colony village (pt.) <sup>18</sup>	241	...	...	Laguna Vista village	632	287	141
Lake Jackson city (pt.) <sup>18</sup>	2	...	...	Port Isabel city <sup>28</sup>	3 769	3 067	3 575
				South Padre Island town <sup>28</sup>	791	...	...
Brazoria—West Columbia division	28 036	18 339	...	Hartings—San Benito division	89 070	...	...
Brazoria city <sup>18</sup>	3 025	1 481	1 291	Combes town <sup>28</sup>	1 488	689	605
Sweeny town <sup>18</sup>	3 538	3 191	3 087	Hartings city <sup>28</sup>	43 543	33 503	41 207
West Columbia city <sup>18</sup>	4 109	3 335	2 947	La Feria city <sup>28</sup>	3 495	2 642	3 047
Wild Peach Village (CDP)	2 385	...	...	Primera town <sup>28</sup>	1 380	902	1 066
Brazosport division	52 033	38 817	...	San Benito city <sup>28</sup>	17 988	15 176	16 422
Clute city <sup>18</sup>	9 577	6 023	4 501	Santa Rosa town	1 889	1 466	1 572
Freeport city <sup>18</sup>	13 444	11 997	11 619				
Jones Creek village <sup>18</sup>	2 634	1 763	...	Las Fresnos—Laureles division	6 125	...	...
Lake Jackson city (pt.) <sup>18</sup>	19 100	13 376	9 651	Bayview town (pt.) <sup>28</sup>	143	(NA)	...
Oyster Creek village <sup>18</sup>	1 473	...	...	Los Fresnos city <sup>28</sup>	2 173	1 297	1 289
Quintana town <sup>18</sup>	30	58	...	Rio Hondo division	4 710	...	...
Richwood city <sup>18</sup>	2 591	1 452	649	Rio Hondo town	1 673	1 167	1 344
Surfside Beach village <sup>18</sup>	577	...	...				
				Camp County <sup>29</sup>	9 275	8 005	7 849
Brazos County <sup>18</sup>	93 588	57 978	44 895	Leesburg—Newsome division	1 041	869	796
Bryan—College Station division	79 211	...	...	Pittsburg division	8 234	7 136	7 053
Bryan city (pt.) <sup>18</sup>	42 992	(NA)	(NA)	Pittsburg city <sup>29</sup>	4 245	3 844	3 796
College Station city (pt.) <sup>18</sup>	36 188	(NA)	(NA)	Rocky Mount town <sup>29</sup>	123	...	...
Northeast Brazos division	4 286	...	...				
Bryan city (pt.) <sup>18</sup>	686	(NA)	(NA)	Carson County <sup>30</sup>	6 672	6 358	7 781
South Brazos division	5 477	...	...	Panhandle division	3 164	...	...
Bryan city (pt.) <sup>18</sup>	437	(NA)	(NA)	Panhandle town <sup>30</sup>	2 226	2 141	1 958
College Station city (pt.) <sup>18</sup>	928	(NA)	(NA)	White Deer—Groom division	3 508	...	...
West Brazos division	4 614	...	...	Groom town	736	808	679
Bryan city (pt.) <sup>18</sup>	222	(NA)	(NA)	Skellytown town	899	716	967
College Station city (pt.) <sup>18</sup>	156	(NA)	(NA)	White Deer town	1 210	1 092	1 057
Brewster County <sup>20</sup>	7 573	7 780	6 434	Cass County <sup>31</sup>	29 430	24 133	23 496
Alpine division	6 859	...	...	Atlanta division	13 969	...	...
Alpine city <sup>20</sup>	5 465	5 971	4 740	Atlanta city <sup>31</sup>	6 272	5 007	4 076
Marathon division	714	...	...	Bloomburg town	419	231	383
				Domino town <sup>31</sup>	249	...	...
Briscoe County <sup>21</sup>	2 579	2 794	3 577	Queen City city <sup>31</sup>	1 748	1 227	1 081
Quitova division	971	910	1 147	Bivins—McLeod division	1 310	1 103	1 270
Quitova city <sup>21</sup>	696	601	586	Hughes Springs—Avenger division	5 329	4 160	4 497
Silverton division	1 608	1 884	2 430	Avenger town	671	642	730
Silverton city	918	1 026	1 098	Hughes Springs city	2 196	1 701	1 813
				Linden division	5 841	5 301	5 362
Brooks County	8 428	8 005	8 609	Linden city <sup>31</sup>	2 443	2 264	1 832
Encino division	888	769	992				
Falfurrias division	7 540	7 236	7 617	Marietta—Douglasville division	2 981	2 722	3 095
Falfurrias city	6 103	6 355	6 515	Douglasville town	228	282	172
				Marietta city <sup>31</sup>	169	177	...
Brown County <sup>22</sup>	33 057	25 877	24 728				
Bangs division	5 074	...	...	Castro County <sup>32</sup>	10 556	10 394	8 923
Bangs city <sup>22</sup>	1 716	1 214	967	Dimmitt North division	7 071	...	...
Blanket division	2 028	...	...	Dimmitt city <sup>32</sup>	5 019	4 327	2 935
Blanket town	388	346	320	Nazareth city (pt.) <sup>32</sup>	272	...	...
Brownwood division	24 916	17 368	16 974	Dimmitt South division	3 485	...	...
Brownwood city <sup>22</sup>	19 396	17 368	16 974	Hart city	1 008	905	577
Early city <sup>22</sup>	2 313	1 097	819	Nazareth city (pt.) <sup>32</sup>	27	...	...
May division	1 039	981	1 199				
				Chambers County <sup>33</sup>	18 538	12 187	10 379
Burleson County <sup>23</sup>	12 313	9 999	11 177	Anahuac division <sup>33</sup>	5 905	4 546	4 587
Caldwell division	6 083	4 701	5 086	Anahuac city	1 840	1 881	1 985
Caldwell city <sup>23</sup>	2 953	2 308	2 204	Seabrook city (pt.) <sup>33</sup>	...	...	...
Cooks Point division	977	986	1 255	Shoreacres city (pt.) <sup>33</sup>	...	...	...
Old River division	2 123	2 170	2 558	Mont Belvieu division	7 700	3 609	2 497
Snook city <sup>23</sup>	408	...	...	Baytown city (pt.) <sup>33</sup>	6	...	...
Somerville division	3 130	2 142	2 278	Beach City city <sup>33</sup>	977	363	...
Somerville city	1 814	1 250	1 177	Cove town <sup>33</sup>	645	...	...
				Mont Belvieu city <sup>33</sup>	1 730	1 144	...
Burnet County <sup>24</sup>	17 803	11 420	9 265	Old River—Winfree city <sup>33</sup>	1 058	...	...
Bertram division	1 443	1 175	1 205				
Bertram city <sup>24</sup>	824	...	...	Winnie—Stowell division	4 933	4 032	3 295
Briggs division	727	...	...	Stowell (CDP)	1 498	...	...
Burnet division	7 154	5 027	4 135	Winnie (CDP)	2 496	1 543	1 114
Burnet town <sup>24</sup>	3 410	2 864	2 214				
Marble Falls division	8 479	4 592	3 023	Cherokee County <sup>34</sup>	38 127	32 008	33 120
Granite Shoals city <sup>24</sup>	634	342	...	Alto division	3 536	...	...
Marble Falls town <sup>24</sup>	3 252	2 209	2 161	Alto town	1 203	1 045	869
				Jacksonville division	18 091	...	...
Caldwell County <sup>25</sup>	23 637	21 178	17 222	Gallatin city (pt.) <sup>34</sup>	13	...	...
Lockhart division	11 564	9 100	8 762	Jacksonville city <sup>34</sup>	12 264	9 734	9 590
Lockhart city <sup>25</sup>	7 953	6 489	6 084	Mount Selman division	2 098	...	...
Luling division	6 326	6 025	5 903	Bulford town (pt.) <sup>34</sup>	59	27	16
Luling city <sup>25</sup>	5 039	4 719	4 412	New Summerfield division	3 100	...	...
Marlinton division	5 547	6 053	2 557	New Summerfield city	319	344	...

See footnotes at end of table.







PHOTOGRAPHER/WITNESS

Michael Watson

1-5-89/11:20/SW

DATE / TIME / DIRECTION

Pipe drainage  
COMMENTS

T&N Lone Star Industries  
on paved portion of  
Road labeled Cass -  
2975.

PHOTOGRAPHER/WITNESS

Michael Watson

1-5-89/11:25/SW

DATE / TIME / DIRECTION

Gate & Private Rd  
COMMENTS

T&N Lone Star Ind.  
On paved portion of  
Road labeled  
Cass 2975 (at  
unpaved end).



Photographer / Witness

Michael Watson

Date / Time / Direction

1-5-89/11:20/SW

Comments: T&N Lone Star Ind.

#3 & #4 Part of Scan,

(5 frames) from S to N on

Cass 2975



Pg 3 of 9

Photographer / 11 8

Michael Watson

Date / Time / Direction

1-5-89/17:20/SW

Comments: T&N Lone Star

Warehouse. Part of Scan

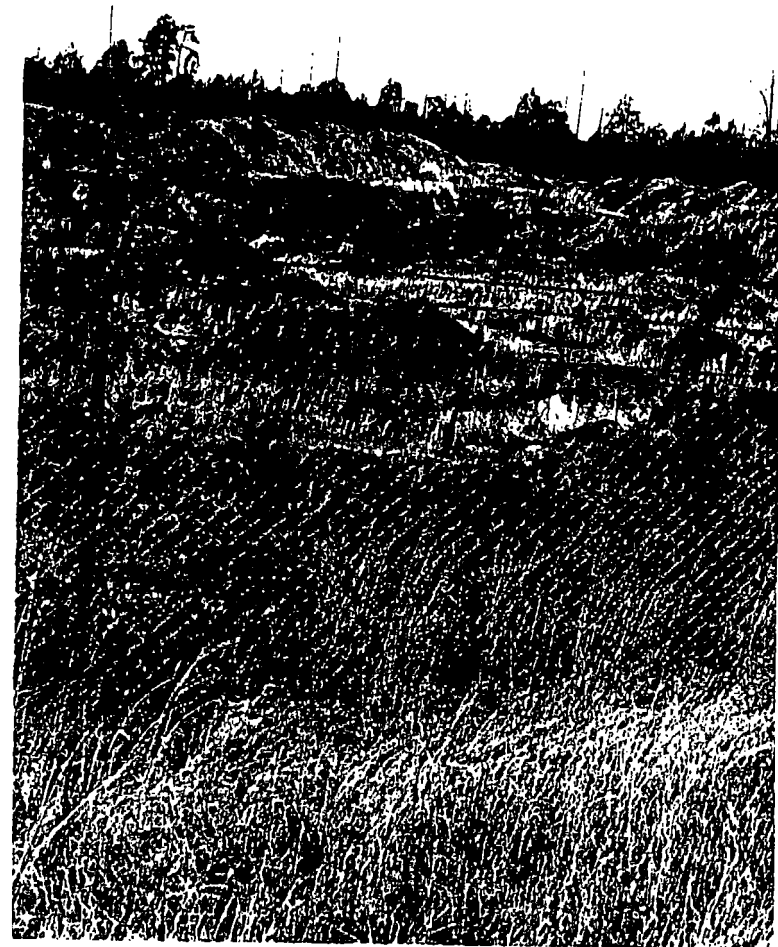
(5 frames) from S To N on

4<sup>th</sup> 5 Cass 2975

Frame #5



Frame #6



NO. 7



PHOTOGRAPHER/WITNESS

Michael Watson  
DATE / TIME / DIRECTION

1-5-89/19:20/SW

COMMENTS

T & N Lone Star Warehouse  
#5 of 5 in Scan from  
South To North

PHOTOGRAPHER/WITNESS

Michael Watson  
DATE / TIME / DIRECTION

1-5-89/18:00/SW

COMMENTS

Suspected location  
of Pit on property  
of T & N Lone  
Star Warehouse



NO.

8

NO.

9A



PHOTOGRAPHER/WITNESS

Michael Watson

DATE / TIME / DIRECTION

1/5/89 / 10:50 / NW

COMMENTS

T&N Lone Star Warehouse

N End of property

on un-named Rd

(S end is Cass 2975)

Showing Drainage  
Ditch

PHOTOGRAPHER/WITNESS

Michael Watson

DATE / TIME / DIRECTION

COMMENTS

NO.



NO. 9



PHOTOGRAPHER/WITNESS

Michael Watson

DATE / TIME / DIRECTION

1/5/89 / 10:30 / NW

COMMENTS

T&N Lone Star

Warehouse - Southern

End of Property on

Cass 2975

PHOTOGRAPHER/WITNESS

Michael Watson

DATE / TIME / DIRECTION

1/5/89 / 10:35 / SW

COMMENTS

T&N Lone Star Warehouse

Another Private Road /

Gate from Cass

2975 (South of

Frame #1)



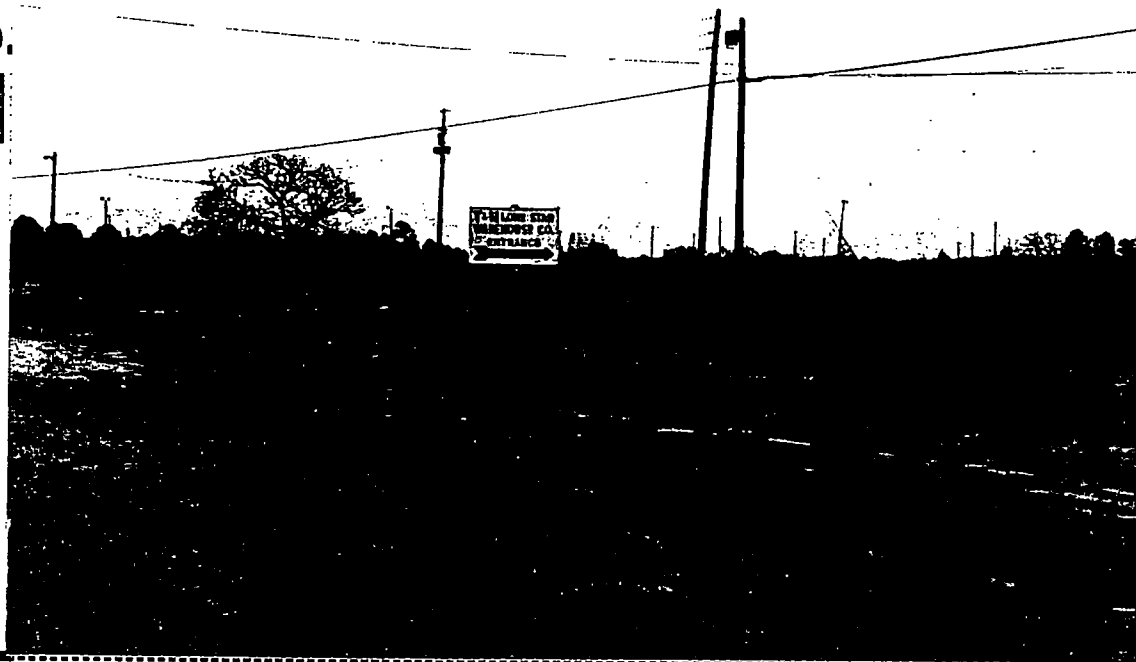
NO.

10



NO.

11



PHOTOGRAPHER/WITNESS

Michael Watson

1/5/89/10:40/ NE

DATE / TIME / DIRECTION

T&N Lone Star Warehouse

COMMENTS

Entrance from Morris  
County FM 250

PHOTOGRAPHER/WITNESS

Michael Watson

DATE / TIME / DIRECTION

1/5/89/10:40/ E

COMMENTS

Entrance To  
T&N Lone Star Warehouse  
from Morris County  
FM 250



NO.

12



NO.

13



PHOTOGRAPHER/WITNESS

*Michael Watson*  
1/5/89 / 10:40 / E

DATE / TIME / DIRECTION

*T&N Lone Star Ware-*  
COMMENTS *house*

*Entrance from*  
*Morris County*  
*FM 250*

PHOTOGRAPHER/WITNESS

*Michael Watson*  
1/5/89 / 10:40 / SE

DATE / TIME / DIRECTION

*T&N Lone Star Warehouse*  
COMMENTS

*Entrance from*  
*Morris County*  
*FM 250*



NO.

14

PG 9 OF 9

NO. 15

PHOTOGRAPHER/WITNESS

DATE / TIME / DIRECTION

COMMENTS

PHOTOGRAPHER/WITNESS

Michael Watson

DATE / TIME / DIRECTION

1/5/89 / 10:40 / SE

COMMENTS

Entrance To T&N  
Lone Star Warehouse  
From Morris  
County FM 250



NO.

15

Please note that the PreScore report for this site is located in the files in the HRS room. Please see one of the HRS coordinators for more information.

SITE NAME Texas and Northern Lone Star Warehouse

TDD # F06-8811-30

PAN FTX0816PAA

CERCLID TXD 981158249